



# PORTABLE ANTENNAS

PROCOM A/S

Home	1
SB 2-1/2/138-160 MHz-N	4
SB 2-1/2/150-160 MHz-N	6
TFA 400/900/1800-SMA	8
TFA 400/900/1800-FME	10
SS 70 1/4-TNC	12
SB 4/...-FME	14
SB 30-88-MU1	16
SB 3/118-137 MHz-BNC	18
SB 3 1/2/118-136 MHz-N	20
SB 27 1/4-FME	22
SB 2/...-IC-F51	24
SB 2/...-GP 300	26
SB 2/...-FME	28
HX 70/...-IC-F61	30
HX 70/...-GP 300	32
HX 70/...-FME	34
HX 41-SHT-FME	36
HX 4/...-FME	38
HX 4/2...-FME	40
HX 30 1/4-FME	42
HX 27 1/4-FME	44
HX 2/...-GP 300	46
HX 2/...-FME	48
HX 2/70...-FME	50
GA 70/...-IC-F61	52
GA 70/...-GP 300	54
GA 70/...-FME	56
GA 4/...-FME	58
GA 27 1/4-FME	60
GA 2/...-IC-F51	62
GA 2/...-GP 300	64
GA 2/...-FME	66
DPA 900/2400/...-SMA	68
DDEFD 70/...-P0.8-...	70
CA-TETRA-...	72
DPA 900/1800-FME	74
FSP 900/...-SMA	76
FSP 900/...-FME	78
FSP 70/TETRA-DESK STAND	80
FSP 70/...-FME	83
FSP 70 1/4/...-ICOM 1/4	85
FSP 70 1/4/...-IC-F61	87
FSP 70 1/4/...-GP 300	89
FSP 70 1/4/...-FME	91
SB 2-1/2/137.5-149.0 MHz-N	93
FSP 2/...-SMA/TAIT	95

FSP 4/...-FME	97
FSP 2/...-IC-F51	99
FSP 2/...-FME	101
FSP 1300/...-FME	103
FSP 1.5/...-FME	105
FLX 2412/...-SMA	107
FLX 2412/...-RSMA	109
FLX 2412/...-FME	111
FLX 1812/...-FME	113
FLX 1300/...-FME	115
ELF 900/...-TNC	117
FLX 70/TETRA-EADS	119
ELF 900/1800-TNC	121
FLX 70/...-IC-F61	123
FLX 70/...-GP 300	125
FLX 400/900-SMA	127
BA 160/GPS	129
AN 864	131
AN 4113/...	132
ELF 2500/...-TNC	134
ELF 1800/...-TNC	136
ELF 1300/...-TNC	138
EFSS 70/...-FME	140
EFD TETRA-1000/...	142
EFD 4912-SMA	145
EFD 345	147
EFD 2R/...-TNC	149
EFD 2412/...-SMA	151
EFD 2412/...-RSMA	153
EFD 2412/2450-SMA GOLD	155
EFD 200R/...-TNC	157
EFD 1800/...-FME	159
EFD 1800/DECT-SMA	161
EFD 1/315 MHz-FME	163
EFD 70/...-FME	165
HX 4/...-MTS2000	167
FLX 70/...-FME	169
FSP 2/...-GP 300	171
FLX 900/...-FME	172
HX 4/70...-FME	174
HX 2/...-IC-F51	176
FLX-W 70/...-SMA-STP8038	178
FLX-P 450/336 MHz-P-SMA	180
GA 30-88-MU5	182
EFD-TETRA-1000-N-5mRG58	184
BA-450/GPS	187
FLX-P 450/336 MHz-P-TNC	189
HX 70/...-SMA-STP8038	191
End	192



## SB 2-1/2/138-160 MHz-N

### Steel-Band Antenna for Portable Equipment in the 2 m Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.

#### Description

- Provided with N (male) connector.
- Matching unit built-in.

#### Ordering designations

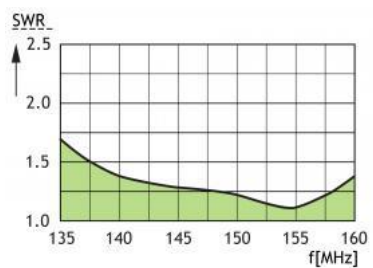
TYPE	PRODUCT NO.
SB 2-1/2/138-160 MHz-N	140000241

#### SPECIFICATIONS FOR WHIP INCL. MATCHING UNIT

ELECTRICAL	
MODEL	SB 2-1/2/138-160 MHz-N
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	138 - 160 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 1.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	10 W
MECHANICAL	

MATERIALS	Whip: Weather- and shockproof plastics Covered stainless steel band N (male) connector: Cu-nite plated brass
COLOUR	Black/Bright
TOTAL HEIGHT	830 mm
WEIGHT	Approx. 145 g
CONNECTOR	N (male)

### TYPICAL SWR CURVE





## SB 2-1/2/150-160 MHz-N

### 50 W Steel-Band Antenna for Portable Equipment in the 150 MHz Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

- Delivered factory-tuned and tested to ensure minimum SWR and optimum performance.
- Provided with N (male) connector.

## ORDERING DESIGNATIONS

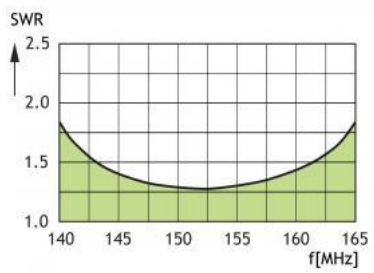
TYPE	PRODUCT NO.
SB 2-1/2/150-160 MHz-N	140000563

## SPECIFICATIONS

ELECTRICAL	
MODEL	SB 2-1/2/150-160 MHz-N
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	150 - 160 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 10$ MHz @ SWR $\leq 1.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Whip: Weather- and shockproof plastics Covered stainless steel band

	N (male) connector: Cu-nite plated brass
COLOUR	Black/Bright
TOTAL HEIGHT	840 mm
WEIGHT	Approx. 205 g
CONNECTOR	N (male)

### TYPICAL SWR CURVE





## TFA 400/900/1800-SMA

$\frac{1}{4} \lambda$  Triple Frequency Antenna for 400, 900 and 1800 MHz bands  
Designed for portable equipment

- This antenna makes it possible to operate on 400, 900 and 1800 MHz at the same time on one antenna.
- Flexible antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.

### DESCRIPTION

- Ready-tuned and unity gain on all 3 bands.
- Provided with SMA male connector.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
TFA 400/900/1800-SMA	140000240

### SPECIFICATIONS

ELECTRICAL	
MODEL	TFA 400/900/1800-SMA
ANTENNA TYPE	Triple frequency portable antenna
FREQUENCY	380 - 430 MHz 880 - 960 MHz 1710 - 1880 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment
BANDWIDTH	400 MHz : $\geq 50$ MHz @ SWR $\leq 2.0$ 880 - 960 MHz : $\geq 80$ MHz @ SWR $\leq 2.0$ 1710 - 1880 MHz : $\geq 300$ MHz @ SWR $\leq 2.5$
SWR	400 MHz : $< 1.3$ @ f. res. 900 MHz : $< 1.5$ @ f. res. 1800 MHz : $< 2.2$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber Cu-nite Brass





COLOUR	Black
TOTAL HEIGHT	Approx. 140 mm
WEIGHT	Approx. 20 g
CONNECTOR	SMA (male)



## TFA 400/900/1800-FME

$\frac{1}{4} \lambda$  Triple Frequency Antenna for 400, 900 and 1800 MHz bands.  
Designed for portable equipment

- This antenna makes it possible to operate on 400, 900 and 1800 MHz at the same time on one antenna.
- Flexible antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.

### DESCRIPTION

- Ready-tuned and unity gain on all three bands.
- Provided with universal FME-connection system for optimum flexibility and with easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
TFA 400/900/1800-FME	140000472

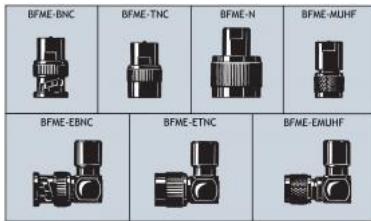
The antenna is delivered factory-tuned. Other frequencies on request.

### SPECIFICATIONS

ELECTRICAL	
MODEL	TFA 400/900/1800-FME
ANTENNA TYPE	Triple-frequency portable antenna
FREQUENCY	380 - 430 MHz 880 - 960 MHz 1710 - 1880 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment
BANDWIDTH	400 MHz : $\geq 50$ MHz @ SWR $\leq 2.0$ 880 - 960 MHz : $\geq 80$ MHz @ SWR $\leq 2.0$ 1710 - 1880 MHz : $\geq 300$ MHz @ SWR $\leq 2.5$
SWR	400 MHz : $< 1.3$ @ f. res. 900 MHz : $< 1.5$ @ f. res. 1800 MHz : $< 2.2$ @ f. res.
MAX. POWER	25 W
MECHANICAL	

MATERIALS	Thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 130 mm
WEIGHT	Approx. 20 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

## SS 70 1/4-TNC

End-Fed  $\frac{1}{4} \lambda$  Monopole Antenna with TNC-Connection System for Portable Equipment in the 420 - 450 MHz Band

- Designed for professional use.
- Full-size  $\frac{1}{4} \lambda$  whip.
- Highest quality materials in an elegant design.



### DESCRIPTION

- Delivered factory-tuned and -tested to ensure minimum SWR and optimum performance.
- TNC (male).

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
SS 70 1/4-TNC	140000360

### SPECIFICATIONS

ELECTRICAL	
MODEL	SS 70 1/4-TNC
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment etc.
FREQUENCY	420 - 450 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Stainless steel Black-chromed brass



COLOUR	Black
TOTAL HEIGHT	Approx. 173 mm
WEIGHT	Approx. 35 g
CONNECTOR	TNC (male)



## SB 4/...-FME

Steel-Band Antenna with Universal FME-Connection System for Portable Equipment in the 4 m Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

### DESCRIPTION

- Shortened  $\frac{1}{4} \lambda$  whip yields an acceptable mechanical length.
- Provided with toggle joint and wing screw for easy fold-down.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, and BFME-N.

### ORDERING DESIGNATIONS

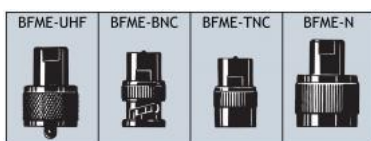
TYPE	PRODUCT NO.	FREQUENCY
SB 4/l-FME	140000075	66 - 76 MHz
SB 4/m-FME	140000076	72 - 82 MHz
SB 4/h-FME	140000074	78 - 88 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	SB 4/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	4 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 10$ MHz @ SWR $\leq 3.0$
SWR	< 2 when mounted directly on portable equipment

MAX. POWER	25 W
MECHANICAL	
MATERIALS	Stainless steel band and rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	650 mm (dep. on type)
WEIGHT	Approx. 85 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The SB 4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system).  
Information on these special versions on request.



### SB 30-88-MU1

Foldable 1 m Steel-Band Antenna with Matching Unit for the 30 - 88 MHz Range

- Rugged, flexible and foldable steel-band whip antenna.
- Provided with "goose neck" section to arbitrary positioning of the whip.

#### DESCRIPTION

- Specially designed for portable two-way radio equipment.
- Highest quality materials ensure many years of trouble-free service.
- Totally designed for tolerating tough environments.
- Matching unit ensures that the antenna can cover the whole 30 - 88 MHz range.
- Matching unit provided with TNC connector.

#### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
SB 30-88-MU1	140000343

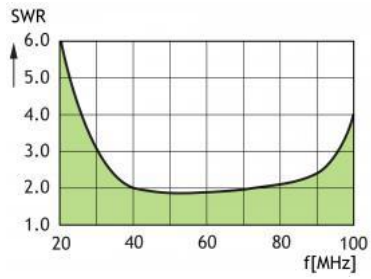
#### SPECIFICATIONS

ELECTRICAL	
MODEL	SB 30-88-MU1
ANTENNA TYPE	$\frac{3}{4} \lambda$ shortened broad-band antenna for portable equipment
FREQUENCY	30 - 88 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 58$ MHz @ SWR $\leq 3.0$
SWR	$\leq 3.0$
MAX. POWER	5 W
MECHANICAL	
MATERIALS	Whip: Stainless steel band covered by weather- and shockproof plastics Matching unit: Housing: Polypropylene TNC connector: Cu-nite plated brass



COLOUR	Black
TOTAL HEIGHT	Approx. $\varnothing 22 \times 1000$ mm
WEIGHT	Approx. 200 g
CONNECTOR	TNC (male)

### TYPICAL SWR CURVE





## SB 3/118-137 MHz-BNC

Steel-Band Antenna with BNC-Connection System for the International Aircraft Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

### DESCRIPTION

- Full-size  $\frac{1}{4} \lambda$  whip.
- Delivered factory-tuned and -tested to ensure minimum SWR and optimum performance.

### ORDERING DESIGNATIONS

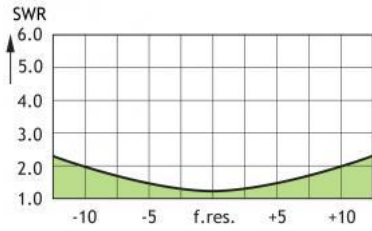
TYPE	PRODUCT NO.
SB 3/118-137 MHz-BNC	140000460

### SPECIFICATIONS

ELECTRICAL	
MODEL	SB 3/118-137 MHz-BNC
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	3 m band
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Stainless steel band and rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	570 mm
WEIGHT	Approx. 50 g

CONNECTOR	BNC (male)
-----------	------------

### TYPICAL SWR CURVE





## SB 3 1/2/118-136 MHz-N

Steel-Band Antenna for Portable Equipment in the 3 m International Aircraft Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

### DESCRIPTION

- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with N (male) connector.
- Matching unit built-in.

### ORDERING DESIGNATIONS

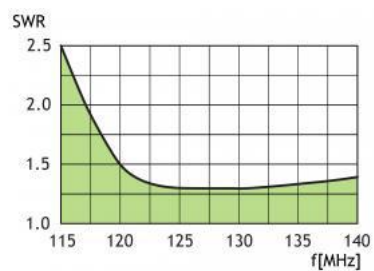
TYPE NO.	PRODUCT NO.
SB 3 1/2/118-136 MHz-N	140000483

### SPECIFICATIONS FOR WHIP INCL. MATCHING UNIT

ELECTRICAL	
MODEL	SB 3 1/2/118-136 MHz-N
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	118 - 136 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	-2 dB (equal to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 15$ MHz @ SWR $\leq 1.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	10 W

MECHANICAL	
MATERIALS	Whip: Weather- and shockproof plastics Covered stainless steel band N (male) connector: Cu-nite plated brass
COLOUR	Black/Bright
TOTAL HEIGHT	830 mm
WEIGHT	Approx. 145 g
CONNECTOR	N (male)

### TYPICAL SWR CURVE





## SB 27 1/4-FME

Steel-Band Antenna with Universal FME-Connection System for Portable Equipment in the 27 MHz Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.
- Shortened  $\frac{1}{4} \lambda$  whip yields an acceptable mechanical length.

### DESCRIPTION

- Provided with toggle joint and wing screw for easy fold-down.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, and BFME-N.

### ORDERING DESIGNATIONS

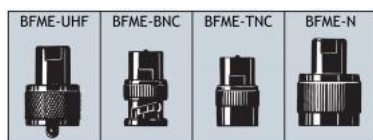
TYPE	PRODUCT NO.
SB 27 1/4-FME	140000045

### SPECIFICATIONS

ELECTRICAL	
MODEL	SB 27 1/4-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	27 MHz CB band
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Stainless steel band and rubber Black-chromed brass
COLOUR	Black

TOTAL HEIGHT	Approx. 650 mm
WEIGHT	Approx. 85 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

**RECOMMENDED BFME-CONNECTORS**



(To be ordered separately)

**PLEASE NOTE**

The SB 27 1/4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## SB 2/...-IC-F51

### Steel-Band Antenna for ICOM Portable Equipment in the 2 m Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

## DESCRIPTION

- Full-size  $\frac{1}{4} \lambda$  whip.
- Provided with toggle joint and wing screw for easy fold-down.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for ICOM IC-F51 (150 MHz band).

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
SB 2/l-IC-F51	140000146	144 - 164 MHz
SB 2/h-IC-F51	140000147	155 - 175 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	SB 2/...-IC-F51
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment



MAX. POWER	200 W
MECHANICAL	
MATERIALS	Stainless steel band and rubber Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	500 mm (dep. on type)
WEIGHT	Approx. 45 g
CONNECTOR	SMA (male) special for IC-F51



## SB 2/...-GP 300

### Steel-Band Antenna for Portable Equipment in the 2 m Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

## DESCRIPTION

- Full-size  $\frac{1}{4} \lambda$  whip.
- Provided with toggle joint and wing screw for easy fold-down.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (150 MHz band) etc.

## ORDERING DESIGNATIONS

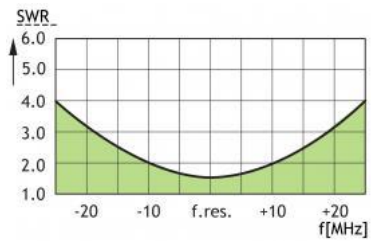
TYPE	PRODUCT NO.	FREQUENCY
SB 2/l-GP 300	140000149	144 - 164 MHz
SB 2/h-GP 300	140000143	155 - 175 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	SB 2/...-GP 300
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$

SWR	< 2 when mounted directly on portable equipment
MAX. POWER	200 W
<b>MECHANICAL</b>	
MATERIALS	Stainless steel band and rubber Weather- and shockproof plastics Black-chromed brass Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	500 mm (dep. on type)
WEIGHT	Approx. 45 g
CONNECTOR	1/4"-32 UNEF

### TYPICAL SWR CURVE





## SB 2/...-FME

Steel-Band Antenna with Universal FME-Connection System for Portable Equipment in the 2 m Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

### DESCRIPTION

- Full-size  $\frac{1}{4} \lambda$  whip.
- Provided with toggle joint and wing screw for easy fold-down.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

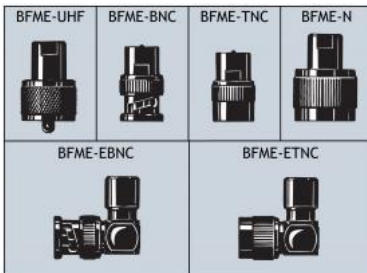
TYPE	PRODUCT NO.	FREQUENCY
SB 2/l-FME	140000148	144 - 164 MHz
SB 2/h-FME	140000144	155 - 175 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	SB 2/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)

BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	$< 2$ when mounted directly on portable equipment
MAX. POWER	200 W
<b>MECHANICAL</b>	
MATERIALS	Stainless steel band and rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	500 mm (dep. on type)
WEIGHT	Approx. 45 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The SB 2 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FMEconnection system). Information on these special versions on request.



## HX 70/...-IC-F61

### Helical Antenna for ICOM Portable Equipment in the 70 cm Band

- Short conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

## DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for ICOM IC-F61 (450 MHz band).

## ORDERING DESIGNATIONS

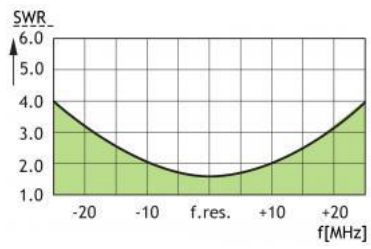
TYPE	PRODUCT NO.	FREQUENCY
HX 70/s-IC-F61	140000199	380 – 410 MHz
HX 70/l-IC-F61	140000202	400 – 430 MHz
HX 70/m-IC-F61	140000327	420 – 450 MHz
HX 70/h-IC-F61	140000200	440 – 470 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	HX 70/...-IC-F61
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	70 cm band covered by four models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.0$
SWR	
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Weather- and shockproof plastics Black-chromed brass
COLOUR	Black

TOTAL HEIGHT	Approx. 65 mm (dep. on type)
WEIGHT	Approx. 20 g
CONNECTOR	1/4"-32 UNEF

### TYPICAL SWR CURVE





## HX 70/...-GP 300

### Helical Antenna for Portable Motorola Equipment in the 70 cm Band

- Short conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

## DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (450 MHz band) etc.

## ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.	FREQUENCY
HX 70/s-GP 300	140000370	380 – 410 MHz
HX 70/l-GP 300	140000369	400 – 430 MHz
HX 70/m-GP 300	140000206	420 – 450 MHz
HX 70/h-GP 300	140000198	440 – 470 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	HX 70/...-GP 300
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	70 cm band covered by four models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.0$
SWR	
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Weather- and shockproof plastics Cu-nite brass
COLOUR	Black





TOTAL HEIGHT	Approx. 65 mm (dep. on type)
WEIGHT	Approx. 20 g
CONNECTOR	1/4"-32 UNEF



## HX 70/...-FME

Antenna with Universal FME-Connection System for Portable Equipment in the 70 cm Band

- Short conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

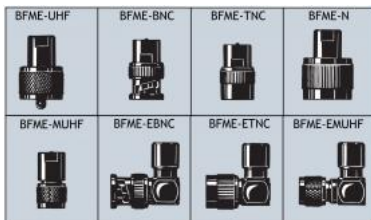
TYPE	PRODUCT NO.	FREQUENCY
HX 70/s-FME	140000195	380 – 410 MHz
HX 70/l-FME	140000204	400 – 430 MHz
HX 70/m-FME	140000205	420 – 450 MHz
HX 70/h-FME	140000201	440 – 470 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	HX 70/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by four models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	Approx. -3 dB (equal to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.0$
SWR	
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Black-chromed brass
COLOUR	Black

TOTAL HEIGHT	Approx. 65 mm (dep. on type)
WEIGHT	Approx. 20 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 70 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 41-SHT-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 41 MHz Band

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory-tuned and -tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

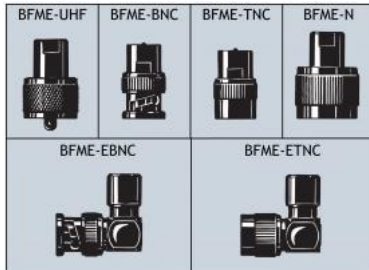
TYPE	PRODUCT NO.
HX 41-SHT-FME	130001890

### SPECIFICATIONS

ELECTRICAL	
MODEL	HX 41-SHT-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	41 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
SWR	< 3 when mounted directly on portable equipment
MAX. POWER	10 W
MECHANICAL	
MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass

COLOUR	Black
TOTAL HEIGHT	Approx. 240 mm
WEIGHT	Approx. 72 g
CONNECTOR	FME-female (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)



## HX 4/...-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 4 m Band

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC and BFME-N.

### ORDERING DESIGNATIONS

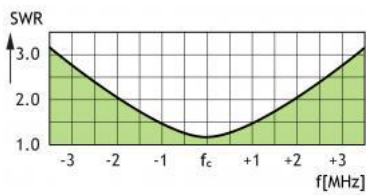
TYPE	PRODUCT NO.	FREQUENCY
HX 4/l-FME	140000067	66 - 76 MHz
HX 4/m-FME	140000072	72 - 82 MHz
HX 4/h-FME	140000064	78 - 88 MHz

### SPECIFICATIONS

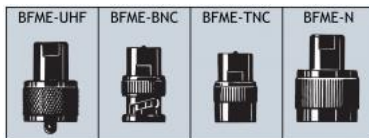
ELECTRICAL	
MODEL	HX 4/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	4 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 6$ MHz at $f_c$ @ SWR $\leq 3.0$
SWR	$< 2$ @ $f_c$ when mounted directly on portable equipment
MAX. POWER	50 W

<b>MECHANICAL</b>	
MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	290 mm (dep. on type)
WEIGHT	Approx. 80 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### SWR CURVE



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 4/2...-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 4 m and 2 m Bands

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC and BFME-N.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
HX 4/2/...-FME	140000073

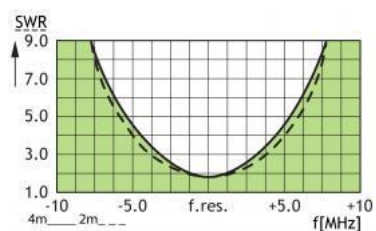
### SPECIFICATIONS

ELECTRICAL	
MODEL	HX 4/2/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	80 MHz band: freq. to be stated within: 66...88 MHz 160 MHz band: freq. to be stated within: 144...175 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	80 MHz: $\geq 6$ MHz @ SWR $\leq 3.0$ 160 MHz: $\geq 8$ MHz @ SWR $\leq 3.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	

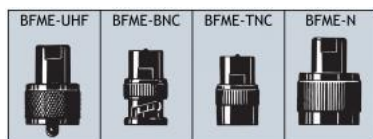


MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	290 mm (dep. on type)
WEIGHT	Approx. 80 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### SWR CURVE



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 4/2 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 30 1/4-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 30 MHz Band

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

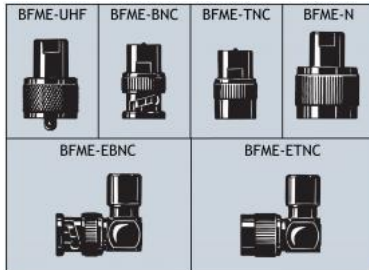
TYPE	PRODUCT NO.
HX 30 1/4-FME	140000052

### SPECIFICATIONS

ELECTRICAL	
MODEL	HX 30 1/4-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	30 MHz band
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	10 W
MECHANICAL	
MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass

COLOUR	Black
TOTAL HEIGHT	Approx. 290 mm
WEIGHT	Approx. 45 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 30 1/4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 27 1/4-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 27 MHz Band

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

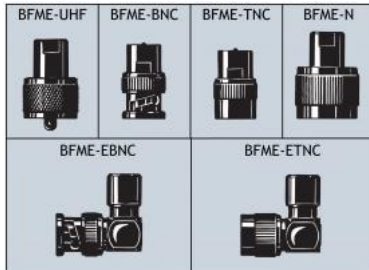
TYPE	PRODUCT NO.
HX 27 1/4-FME	140000043

### SPECIFICATIONS

ELECTRICAL	
MODEL	HX 27 1/4-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	27 MHz CB band
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
SWR	< 3 when mounted directly on portable equipment
MAX. POWER	10 W
MECHANICAL	
MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass

COLOUR	Black
TOTAL HEIGHT	Approx. 290 mm
WEIGHT	Approx. 45 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 27 1/4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 2/...-GP 300

### Helical Antenna for Portable Equipment in the 2 m Band

- Flexible, conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (150 MHz band) etc.

### ORDERING DESIGNATIONS

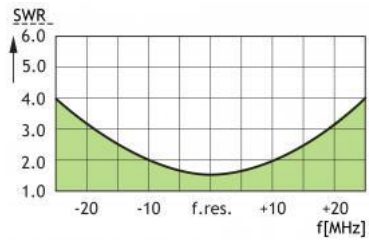
TYPE	PRODUCT NO.	FREQUENCY
HX 2/l-GP 300	140000136	144 - 160 MHz
HX 2/m-GP 300	140000128	152 - 168 MHz
HX 2/h-GP 300	140000127	160 - 175 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	HX 2/...-GP 300
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	2 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 16$ MHz @ SWR $\leq 3.0$
SWR	< 1.5 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Weather- and shockproof plastics Cu-nite brass

COLOUR	Black
TOTAL HEIGHT	Approx. 150 mm (dep. on type)
WEIGHT	Approx. 30 g
CONNECTOR	1/4"-32 UNEF

### TYPICAL SWR CURVES





## HX 2/...-FME

### Helical Antenna with Universal FME-Connection System for Portable Equipment in the 2 m Band

- Flexible, conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

## DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory-tuned and -tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of the Procom line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
HX 2/l-FME	140000137	144 - 160 MHz
HX 2/m-FME	140000140	152 - 168 MHz
HX 2/h-FME	140000121	160 - 175 MHz

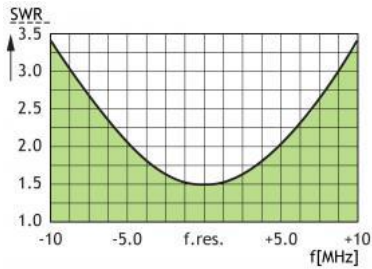
## SPECIFICATIONS

ELECTRICAL	
MODEL	HX 2/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	2 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 16$ MHz @ SWR $\leq 3.0$
SWR	< 1.5 when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Black-chromed brass



COLOUR	Black
TOTAL HEIGHT	Approx. 150 mm (dep. on type)
WEIGHT	Approx. 30 g
CONNECTOR	FME-female (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVES



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 2 is also available with SMA-male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 2/70...-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 2 m and 70 cm Bands

- Flexible, conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

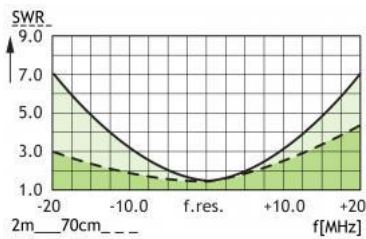
TYPE	PRODUCT NO.
HX 2/70/...-FME	140000123

### SPECIFICATIONS

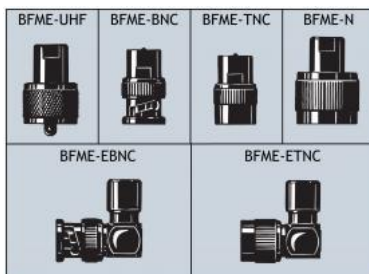
ELECTRICAL	
MODEL	HX 2/70/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	160 MHz band: freq. to be stated within: 144...175 MHz 450 MHz band: freq. to be stated within: 380...470 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	160 MHz: $\geq 16$ MHz @ SWR $\leq 3.0$ 450 MHz: $\geq 25$ MHz @ SWR $\leq 3.0$
SWR	< 1.6 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber

	Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 150 mm (dep. on type)
WEIGHT	Approx. 30 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVES



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The HX 2/70 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## GA 70/...-IC-F61

### Rubber Antenna for ICOM Portable Equipment in the 70 cm Band

- Sturdy, conical, flexible rubber antenna.
- Highest quality materials – designed for “wear and tear”.

- Full-size  $\frac{1}{4} \lambda$  whip.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for ICOM IC-F61 (450 MHz band).

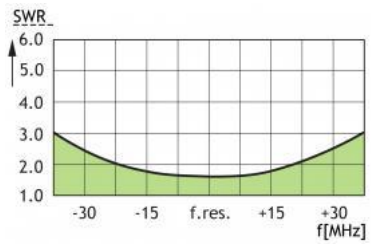
## ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.	FREQUENCY
GA 70/s-IC-F61	140000189	380 – 430 MHz
GA 70/l-IC-F61	140000193	400 – 450 MHz
GA 70/h-IC-F61	140000191	420 – 470 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	GA 70/...-IC-F61
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 60$ MHz @ SWR $\leq 2.5$
SWR	$\leq 2$ when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber Environment-proof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 140 mm (dep. on type)
WEIGHT	Approx. 30 g
CONNECTOR	SMA (male) special for IC-F61

### TYPICAL SWR CURVE





## GA 70/...-GP 300

### Rubber Antenna for Portable Equipment in the 70 cm Band

- Sturdy, conical, flexible rubber antenna.
- Full size  $\frac{1}{4} \lambda$  whip.

- Highest quality materials – designed for “wear and tear”.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (450 MHz band) etc.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
GA 70/s-GP 300	140000368	380 – 430 MHz
GA 70/l-GP 300	140000304	400 – 450 MHz
GA 70/h-GP 300	140000305	420 – 470 MHz

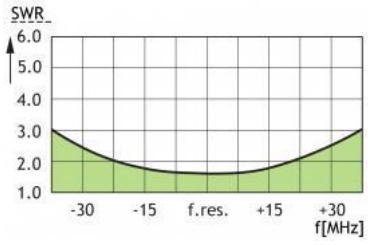
## SPECIFICATIONS

ELECTRICAL	
MODEL	GA 70/...-GP 300
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 60$ MHz @ SWR $\leq 2.5$
SWR	$\leq 2$ when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber Weather- and shockproof plastics Black-chromed brass Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	Approx. 140 mm (dep. on type)
WEIGHT	Approx. 30 g

CONNECTOR

1/4"-32 UNEF

### TYPICAL SWR CURVE





## GA 70/...-FME

Rubber Antenna with Universal FME-Connection System for Portable Equipment in the 70 cm Band

- Sturdy, conical, flexible rubber antenna.
- Full size  $\frac{1}{4} \lambda$  whip.

- Highest quality materials – designed for “wear and tear”.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
GA 70/s-FME	140000194	380 – 430 MHz
GA 70/l-FME	140000192	400 – 450 MHz
GA 70/h-FME	140000190	420 – 470 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	GA 70/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 60$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 140 mm (dep. on type)
WEIGHT	Approx. 30 g





CONNECTOR

FME (female) (Exchangeable BFME-connectors  
to be ordered separately)

**PLEASE NOTE**

The GA 70 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



### GA 4/...-FME

Rubber Antenna with Universal FME-Connection System for Portable Equipment in the 4 m Band

- Sturdy, conical, flexible rubber antenna.
- Shortened  $\frac{1}{4} \lambda$  whip yields an acceptable mechanical length.

- Highest quality materials - designed for "wear and tear".
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, and BFME-N.

### ORDERING DESIGNATIONS

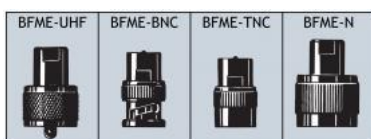
TYPE	PRODUCT NO.	FREQUENCY
GA 4/l-FME	140000062	66 - 76 MHz
GA 4/m-FME	140000063	72 - 82 MHz
GA 4/h-FME	140000060	78 - 88 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	GA 4/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	4 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 10$ MHz @ SWR $\leq 3.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	

MATERIALS	Steelwire moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 500 mm (dep. on type)
WEIGHT	Approx. 85 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

**The GA 4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection**

system). Information on these special versions on request.



### GA 27 1/4-FME

Rubber Antenna with Universal FME-connection System for Portable Equipment in the 27 MHz Band

- Sturdy, conical, flexible rubber antenna.
- Shortened  $\frac{1}{4} \lambda$  whip yields an acceptable mechanical length.

- Highest quality materials - designed for "wear and tear".
- Delivered factory tuned and tested to ensure minimum SWR.
- and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, and BFME-N.

### ORDERING DESIGNATIONS

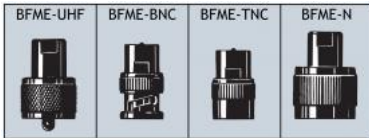
TYPE	PRODUCT NO.
GA 27 1/4-FME	140000042

### SPECIFICATIONS

ELECTRICAL	
MODEL	GA 27 1/4-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	27 MHz CB band
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black

TOTAL HEIGHT	Approx. 500 mm
WEIGHT	Approx. 85 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered seperately)

### PLEASE NOTE

The GA 27 1/4 is also available with different thread studs, but in this case with fixed non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## GA 2/...-IC-F51

### Rubber Antenna for ICOM Portable Equipment in the 2 m Band

- Sturdy, conical, flexible rubber antenna.
- Full size  $\frac{1}{4} \lambda$  whip.

### Description

- Highest quality materials – designed for “wear and tear”.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for ICOM IC-F51 (150 MHz band).

### ORDERING DESIGNATIONS

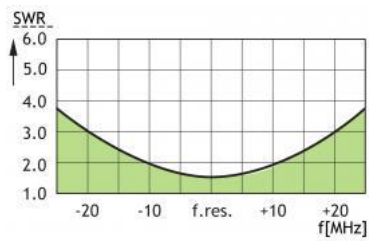
TYPE	PRODUCT NO.	FREQUENCY
GA 2/l-IC-F51	140000362	144 - 164 MHz
GA 2/h-IC-F51	140000361	155 - 175 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	GA 2/...-IC-F51
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	

MATERIALS	Steelwire moulded in thermoplastic rubber Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	450 mm (dep. on type)
WEIGHT	Approx. 60 g
CONNECTOR	SMA (male) special for IC-F51

### TYPICAL SWR CURVE





## GA 2/...-GP 300

### Rubber Antenna for Portable Equipment in the 2 m Band

- Sturdy, conical, flexible rubber antenna.
- Full size  $\frac{1}{4} \lambda$  whip.

### Description

- Highest quality materials – designed for “wear and tear”.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (150 MHz band) etc.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
GA 2/l-GP 300	140000119	144 - 164 MHz
GA 2/h-GP 300	140000114	155 - 175 MHz

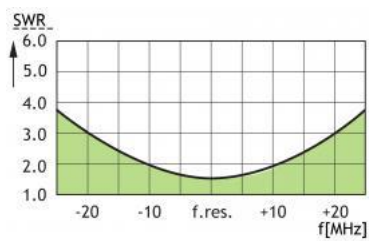
### SPECIFICATIONS

ELECTRICAL	
MODEL	GA 2/...-GP 300
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W



MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber Weather- and shockproof plastics Black-chromed brass Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	450 mm (dep. on type)
WEIGHT	Approx. 60 g
CONNECTOR	1/4"-32 UNEF

### TYPICAL SWR CURVE





## GA 2/...-FME

Rubber Antenna with Universal FME-Connection System for Portable Equipment in the 2 m Band

- Sturdy, conical, flexible rubber antenna
- Full size  $\frac{1}{4} \lambda$  whip.

- Highest quality materials - designed for "wear and tear".
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
GA 2/l-FME	140000120	144 - 164 MHz
GA 2/h-FME	140000116	155 - 175 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	GA 2/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	

MATERIALS	Steelwire moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	450 mm (dep. on type)
WEIGHT	Approx. 60 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The GA 2 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FMEconnection system). Information on these special versions on request.



## DPA 900/2400/...-SMA

### Dual Band Portable Antenna for 900 and 2400 MHz Bands

- This antenna makes it possible to operate on 900 and 2400 MHz at the same time on one antenna.
- Flexible antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.

### Description

- Ready-tuned and unity gain on both bands.
- Provided with SMA male connector.
- Fixed 2400 MHz and 900 MHz Band within 868 - 960 MHz.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
DPA 900/2400/...-SMA	140000290

### SPECIFICATIONS

ELECTRICAL	
MODEL	DPA 900/2400/...-SMA
ANTENNA TYPE	Dual Band portable antenna
FREQUENCY	Models within 868 - 960 MHz 2300 - 2500 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	0 dB compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment
BANDWIDTH	900 MHz : $\geq 80$ MHz @ SWR $\leq 2.0$ 2400 MHz : $\geq 200$ MHz @ SWR $\leq 2.0$
SWR	900 MHz : $< 1.5$ @ f. res. 2400 MHz : $< 2.0$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber Cu-nite Brass
COLOUR	Black

TOTAL HEIGHT	Approx. 80 mm
WEIGHT	Approx. 10 g
CONNECTOR	SMA (male)





## DDEFD 70/...-P0.8-...

### Covert Body Antenna for TETRA Band

- Flexible covert body antenna for the TETRA-band.
- Consists of two separate  $\frac{1}{2} \lambda$  antennas for optimal performance.
- A matching unit connects the antennas to only one cable for the portable radio.

## Description

- The antenna units have a flexible backside of metal for minimizing the influence of radiation to the body and the bad influence of the body (mismatching).
- For "mounting" the antennas, you can put them in a long pocket in coats, pants or the like.
- Can also be used as a covert vehicle antenna.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
DDEFD 70/390 MHz-P0.8-MFME	140000382
DDEFD 70/390 MHz-P0.8-SMA(m)	140000493

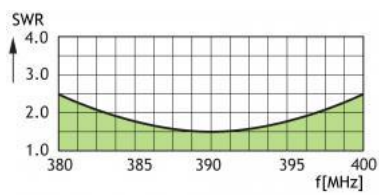
## SPECIFICATIONS

ELECTRICAL					
MODEL	DDEFD 70/...-P0.8-...				
ANTENNA TYPE	Dual $\frac{1}{2} \lambda$ antenna				
FREQUENCY	380 - 400 MHz				
IMPEDANCE	Nom. 50 $\Omega$				
POLARIZATION	Vertical				
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$				
SWR	$< 2.5$ when mounted in coat				
MAX. POWER	25 W				
MECHANICAL					
MATERIALS	Neoprene, POM and brass				
COLOUR	Black, brown and gold				
TOTAL LENGTH	Approx. 1130 mm				
CABLE LENGTH	<table border="1"> <tbody> <tr> <td>Connector to matching unit</td> <td>: Approx. 0.4 m</td> </tr> <tr> <td>Antennas to matching unit</td> <td>: Approx. 0.4 m</td> </tr> </tbody> </table>	Connector to matching unit	: Approx. 0.4 m	Antennas to matching unit	: Approx. 0.4 m
Connector to matching unit	: Approx. 0.4 m				
Antennas to matching unit	: Approx. 0.4 m				

WEIGHT	Approx. 130 g
DIMENSIONS (H x W x L)	Antenna element 10 x 30 x 335 mm
CONNECTOR	MFME or SMA (male)
MOUNTING	In a long pocket in coats, pants or the like



**TYPICAL SWR CURVE**





## CA-TETRA-...

### Disguised Antenna for TETRA Band

- Highly flexible, polyethylene covered coaxantenna.
- $\frac{1}{2} \lambda$  skirt dipole antenna.

## DESCRIPTION

- Disguised body antenna.
- Especially designed for building-in in coat collars or the like.
- No irritating antenna which can hamper freedom of movement.
- Highest quality materials in an elegant design.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
CA-TETRA-FSMA	140000498
CA-TETRA-MSMA	140000518

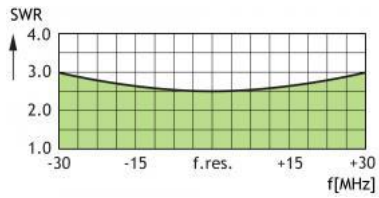
## SPECIFICATIONS

ELECTRICAL	
MODEL	CA-TETRA-...
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna
FREQUENCY	380 - 430 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.5$
SWR	< 2.5 when mounted in coat collar
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Polyethylene covered coax cable Cu-nite brass



COLOUR	Black
TOTAL HEIGHT	Approx. 470 mm
WEIGHT	Approx. 25 g
CONNECTOR	SMA (female or male)

### TYPICAL SWR CURVE





## DPA 900/1800-FME

¼ λ Dual-Frequency Antenna for 900 and 1800 MHz bands Designed for portable equipment

- This antenna makes it possible to operate on 900 and 1800 MHz at the same time on one antenna.

### Description

- Flexible antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.
- Ready-tuned and unity gain on both bands.
- Provided with FME (female) connector.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
DPA 900/1800-FME	140000453

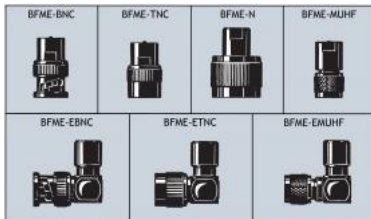
The antenna is delivered factory-tuned. Other frequencies on request.

### SPECIFICATIONS

ELECTRICAL	
MODEL	DPA 900/1800-FME
ANTENNA TYPE	Dual-frequency portable antenna
FREQUENCY	880 - 960 MHz 1710 - 1880 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	0 dB compared to a ¼ λ portable antenna on the same equipment
BANDWIDTH	880 - 960 MHz : ≥ 80 MHz @ SWR ≤ 2.0 1710 - 1880 MHz : ≥ 300 MHz @ SWR ≤ 2.5
SWR	900 MHz : < 1.5 @ f. res. 1800 MHz : < 2.2 @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber

	Cu-nite Brass
COLOUR	Black
TOTAL HEIGHT	Approx. 130 mm
WEIGHT	Approx. 20 g
CONNECTOR	FME (female)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)



## FSP 900/...-SMA

### End-Fed $\frac{1}{2} \lambda$ Dipole Antenna for Portable Equipment in the 900 MHz Band

- Highly flexible polyethylene covered StraightFlex steel wire (self-straightening).
- Full size, end-fed  $\frac{1}{2} \lambda$  antenna whip – groundplane independent.

## DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 2.15 dBi gain half-wave dipole antenna.
- Highest quality materials in a slender and elegant design.
- Delivered factory tuned to customer specified frequency or cellular system.
- Provided with SMA male connector.

## ORDERING DESIGNATIONS

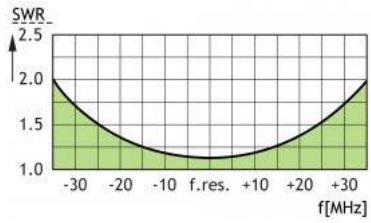
TYPE	PRODUCT NO.	FREQUENCY
FSP 900/...-SMA	140000295	820 - 960 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 900/...-SMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	900 MHz band (820 - 960 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	2.15 dBi 0 dBd
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 170 mm (dep. on type)

WEIGHT	Approx. 25 g
CONNECTOR	SMA (male)

### TYPICAL SWR CURVE





## FSP 900/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 900 MHz Band

- Highly flexible polyethylene covered StraightFlex steel wire (self-straightening).
- Full size, end-fed  $\frac{1}{2} \lambda$  antenna whip – groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a slender and elegant design.
- Delivered factory tuned to customer specified frequency or cellular system.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

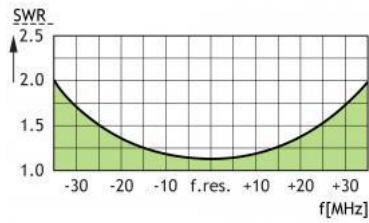
TYPE	PRODUCT NO.	FREQUENCY
FSP 900/...-FME	140000231	820 - 960 MHz

### SPECIFICATIONS

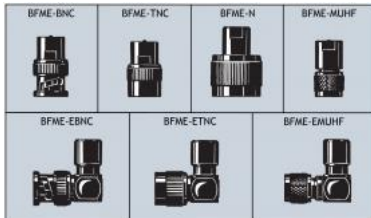
ELECTRICAL	
MODEL	FSP 900/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	900 MHz band (820 - 960 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black

TOTAL HEIGHT	Approx. 170 mm (dep. on type)
WEIGHT	Approx. 25 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVE



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)



## FSP 70/TETRA-DESK STAND

### End-Fed $\frac{1}{2} \lambda$ Dipole Antenna for Portable Equipment in TETRA Band

- Highly flexible polyethylene covered StraightFlex steel wire (self-straightening).
- Full-size, end-fed  $\frac{1}{2} \lambda$  antenna whip.
- High gain and efficient decoupling from the portable equipment.

## DESCRIPTION

- 0 / 2.15 dBi gain compared to a base station antenna.
- Highest quality materials in an elegant design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with 4 m cable with FME connector.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
FSP 70/TETRA-DESK STAND	140000401

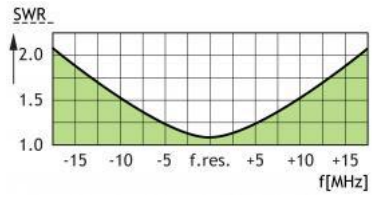
## SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 70/TETRA-DESK STAND
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	TETRA (380 - 410 MHz) other frequencies on request
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dBd / 2.15 dBi (compared to $\frac{1}{2} \lambda$ dipole)
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.5$
SWR	< 1.3 @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass

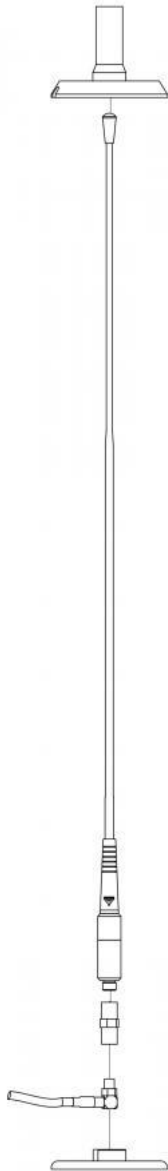


COLOUR	Black
TOTAL HEIGHT	Approx. 390 mm
WEIGHT	Approx. 150 g
CONNECTOR	4 m RG 58 low loss cable with FME (female) connector

### TYPICAL SWR CURVE



### ASSEMBLY INSTRUCTION







### FSP 70/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 70 cm Band

- Highly flexible polyethylene covered StraightFlex steel wire (self-straightening).
- Full-size, end-fed  $\frac{1}{2} \lambda$  antenna whip.

#### DESCRIPTION

- High gain and efficient decoupling from the portable equipment.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in an elegant design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

#### ORDERING DESIGNATIONS

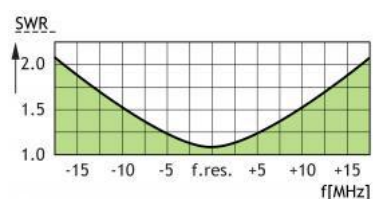
TYPE	PRODUCT NO.	FREQUENCY
FSP 70/...-FME	140000182	380 - 470 MHz

#### SPECIFICATIONS

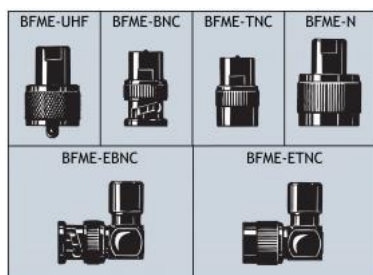
ELECTRICAL	
MODEL	FSP 70/...-FME
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band (380 - 470 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.5$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W

<b>MECHANICAL</b>	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 340 mm (dep. on type)
WEIGHT	Approx. 50 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVE



### RECOMMENDED BFME-CONNECTORS





### FSP 70 1/4/...-ICOM 1/4

"StraightFlex" Antenna with ICOM 1/4"-32 UNEF-2A Connector for Portable Equipment in the 70 cm Band

- Highly flexible, polyethylene covered with StraightFlex steel wire.
- Full-size  $\frac{1}{4} \lambda$  whip.

#### DESCRIPTION

- Highest quality materials in an elegant design.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with ICOM 1/4"-32 UNEF-2A connector.

#### ORDERING DESIGNATIONS

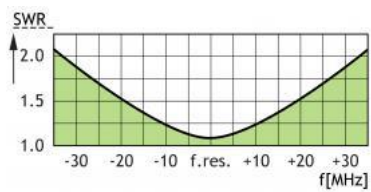
TYPE	PRODUCT NO.	FREQUENCY
FSP 70 1/4/s-ICOM 1/4"-32	140000178	380 - 430 MHz
FSP 70 1/4/l-ICOM 1/4"-32	140000373	400 - 450 MHz
FSP 70 1/4/h-ICOM 1/4"-32	140000177	420 - 470 MHz

#### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 70 1/4/...-ICOM 1/4"-32
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	< 2 when mounted directly on portable equipment

MAX. POWER	100 W
<b>MECHANICAL</b>	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 170 mm (dep. on type)
WEIGHT	Approx. 24 g
CONNECTOR	ICOM 1/4"-32 UNEF-2A

### TYPICAL SWR CURVE





## FSP 70 1/4/...-IC-F61

“StraightFlex” Antenna for ICOM Portable Equipment in the 70 cm Band

- Highly flexible, polyethylene covered with StraightFlex steel wire.
- Full-size  $\frac{1}{4} \lambda$  whip.

### DESCRIPTION

- Highest quality materials in an elegant design.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for ICOM IC-F61 (450 MHz band).

### ORDERING DESIGNATIONS

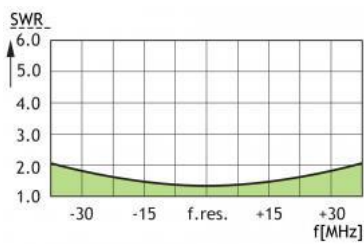
TYPE	PRODUCT NO.	FREQUENCY
FSP 70 1/4/s-IC-F61	140000174	380 – 430 MHz
FSP 70 1/4/l-IC-F61	140000372	400 – 450 MHz
FSP 70 1/4/h-IC-F61	140000172	420 – 470 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 70 1/4/...-IC-F61
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W

<b>MECHANICAL</b>	
MATERIALS	Polyethylene covered flexible steel wire Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 200 mm (dep. on type)
WEIGHT	Approx. 15 g
CONNECTOR	SMA (male) special for IC-F61

### TYPICAL SWR CURVE







## FSP 70 1/4/...-GP 300

“StraightFlex” Antenna for ICOM Portable Equipment in the 70 cm Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Full-size  $\frac{1}{4} \lambda$  whip.

### DESCRIPTION

- Highest quality materials in an elegant design.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (450 MHz band) etc.

### ORDERING DESIGNATIONS

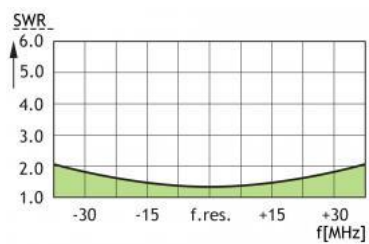
TYPE	PRODUCT NO.	FREQUENCY
FSP 70 1/4/s-GP 300	140000175	380 – 430 MHz
FSP 70 1/4/l-GP 300	140000265	400 – 450 MHz
FSP 70 1/4/h-GP 300	140000173	420 – 470 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 70 1/4/...-GP 300
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	< 2 when mounted directly on portable equipment

MAX. POWER	100 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Weather- and shockproof plastics Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	Approx. 200 mm (dep. on type)
WEIGHT	Approx. 15 g
CONNECTOR	1/4"-32 UNEF

### TYPICAL SWR CURVE





### FSP 70 1/4/...-FME

“StraightFlex” Antenna with Universal FME-Connection System for Portable Equipment in the 70 cm Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Full-size  $\frac{1}{4} \lambda$  whip.

#### DESCRIPTION

- Highest quality materials in an elegant design.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

#### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
FSP 70 1/4/s-FME	140000181	380 – 430 MHz
FSP 70 1/4/l-FME	140000184	400 – 450 MHz
FSP 70 1/4/h-FME	140000183	420 – 470 MHz

#### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 70 1/4/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	$< 2$ when mounted directly on portable equipment

MAX. POWER	100 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 200 mm (dep. on type)
WEIGHT	Approx. 15 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FSP 70 1/4 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## SB 2-1/2/137.5-149.0 MHz-N

Steel-Band Antenna for portable Equipment in the 160 MHz Band

- Rugged, flexible steel-band antenna whip.
- Curved sectional area to help keeping the antenna erect.

### DESCRIPTION

- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with N (male) connector.
- Matching unit built-in.

### ORDERING DESIGNATIONS

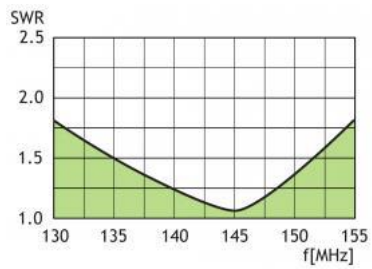
TYPE NO.	PRODUCT NO.
SB 2-1/2/137.5-149.0 MHz-N	140000432

### SPECIFICATIONS FOR WHIP INCL. MATCHING UNIT

ELECTRICAL	
MODEL	SB 2-1/2/137.5-149.0 MHz-N
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	137.5 - 149.0 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	-2 dB (equal to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 15$ MHz @ SWR $\leq 1.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	10 W

MECHANICAL	
MATERIALS	Whip: Weather- and shockproof plastics Covered stainless steel band N (male) connector: Cu-nite plated brass
COLOUR	Black/Bright
TOTAL HEIGHT	830 mm
WEIGHT	Approx. 145 g
CONNECTOR	N (male)

### TYPICAL SWR CURVE





## FSP 2/...-SMA/TAIT

“StraightFlex” Antenna for TAIT Portable Equipment in the 2 m Band

- Highly flexible, polyethylene-covered StraightFlex steel wire.
- Full size  $\frac{1}{4} \lambda$  antenna whip.

### DESCRIPTION

- Highest quality materials in an elegant and slender design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for TAIT portable radios (SMA-male).

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
FSP 2/l-SMA/TAIT	140000413	144 - 164 MHz
FSP 2/h-SMA/TAIT	140000412	155 - 175 MHz
FSP 2/166-174 MHz-SMA/TAIT	140000405	166 - 174 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 2/...-SMA/TAIT
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W

MECHANICAL	
MATERIALS	Polyethylene-covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 560 mm (dep. on type)
WEIGHT	Approx. 35 g
CONNECTOR	SMA (male) special for TAIT





### FSP 4/...-FME

“StraightFlex” Antenna with Universal FME-Connection System for Portable Equipment in the 4 m Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Shortened  $\frac{1}{4} \lambda$  antenna whip yields an acceptable mechanical length.

### DESCRIPTION

- Highest quality materials in an elegant and slender design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC and BFME-N.

### ORDERING DESIGNATIONS

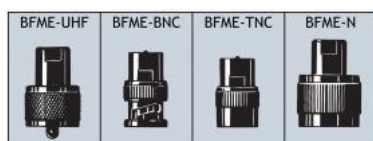
TYPE	PRODUCT NO.	FREQUENCY
FSP 4/l-FME	140000057	66 - 76 MHz
FSP 4/m-FME	140000058	72 - 82 MHz
FSP 4/h-FME	140000055	78 - 88 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 4/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	4 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 10$ MHz @ SWR $\leq 3.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	25 W

<b>MECHANICAL</b>	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	500 mm (dep. on type)
WEIGHT	Approx. 70 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FSP 4 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## FSP 2/...-IC-F51

“StraightFlex” Antenna for ICOM Portable Equipment in the 2 m Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Full size  $\frac{1}{4} \lambda$  antenna whip.

### DESCRIPTION

- Highest quality materials in an elegant and slender design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for ICOM IC-F51 (150 MHz band).

### ORDERING DESIGNATIONS

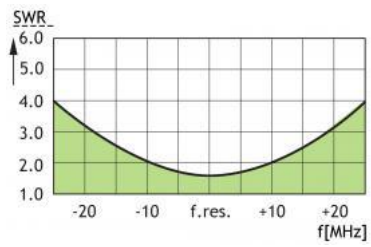
TYPE	PRODUCT NO.	FREQUENCY
FSP 2/l-IC-F51	140000110	144 - 164 MHz
FSP 2/h-IC-F51	140000111	155 - 175 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 2/...-IC-F51
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	

MATERIALS	Polyethylene covered flexible steel wire Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 540 mm (dep. on type)
WEIGHT	Approx. 35 g
CONNECTOR	SMA (male) special for IC-F51

### TYPICAL SWR CURVES





### FSP 2/...-FME

“StraightFlex” Antenna with Universal FME-Connection System for Portable Equipment in the 2 m Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Full size  $\frac{1}{4} \lambda$  antenna whip.

### DESCRIPTION

- Highest quality materials in an elegant and slender design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

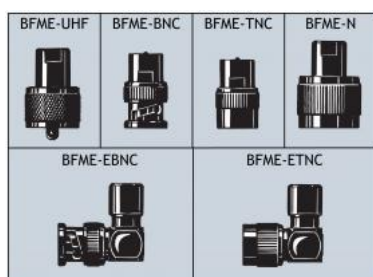
TYPE	PRODUCT NO.	FREQUENCY
FSP 2/l-FME	140000113	144 - 164 MHz
FSP 2/h-FME	140000095	155 - 175 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 2/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W

<b>MECHANICAL</b>	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 490 mm (dep. on type)
WEIGHT	Approx. 35 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FSP 2 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FMEconnection system). Information on these special versions on request.



## FSP 1300/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 1300 MHz Band

- Highly flexible polyethylene covered StraightFlex steel wire (self-straightening).
- Full size, end-fed  $\frac{1}{2} \lambda$  antenna whip – groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a slender and elegant design.
- Delivered factory tuned to customer specified frequency.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

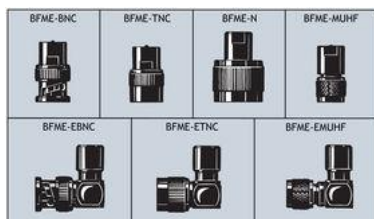
TYPE	PRODUCT NO.
FSP 1300/...-FME	140000232

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 1300/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	1300 MHz band (1200 - 1300 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black

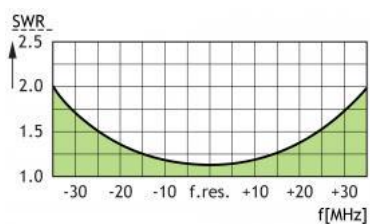
TOTAL HEIGHT	Approx. 150 mm
WEIGHT	Approx. 25 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### TYPICAL SWR CURVE







## FSP 1.5/...-FME

“StraightFlex” Antenna with Universal FME-Connection System for Portable Equipment in the 200 MHz Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Full size  $\frac{1}{4} \lambda$  antenna whip.

### DESCRIPTION

- Highest quality materials in an elegant and slender design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

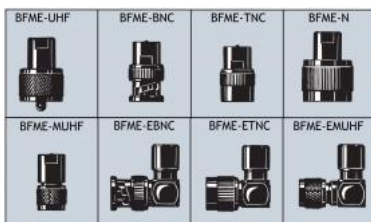
TYPE	PRODUCT NO.	FREQUENCY
FSP 1.5/l-FME	140000151	175 - 200 MHz
FSP 1.5/m-FME	140000152	190 - 215 MHz
FSP 1.5/h-FME	140000150	200 - 225 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FSP 1.5/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	175 - 225 MHz covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\leq 25$ MHz @ SWR $\leq 2.5$
SWR	$< 2$ when mounted directly on portable equipment

MAX. POWER	100 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 420 mm (dep. on type)
WEIGHT	Approx. 30 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FSP 1.5 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## FLX 2412/...-SMA

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with SMA-Connector for Portable Equipment in the 2400 MHz Band

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the ISM, RLAN, WLAN systems.
- Provided with SMA (male) connector.

### ORDERING DESIGNATIONS

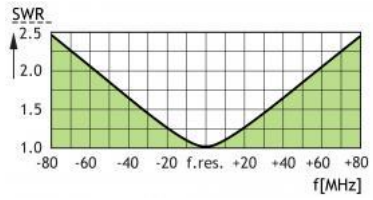
TYPE	PRODUCT NO.
FLX 2412/...-SMA	140000221

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 2412/...-SMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	To be specified within 2300 - 2500 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 100$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 85 mm

WEIGHT	Approx. 22 g
CONNECTOR	SMA (male)

### TYPICAL SWR CURVE





## FLX 2412/...-RSMA

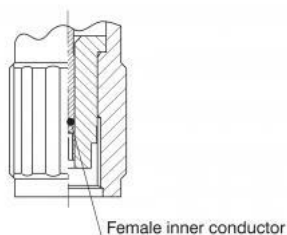
End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with RSMA-Connector for Portable Equipment in the 2400 MHz Band

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the ISM, RLAN, WLAN systems.
- Provided with RSMA connector.

### RSMA CONNECTOR DETAILS



### ORDERING DESIGNATIONS

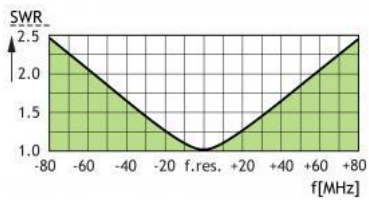
TYPE	PRODUCT NO.
FLX 2412/...-RSMA	140000230

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 2412/...-RSMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	To be specified within 2300 - 2500 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)

BANDWIDTH	$\geq 100$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
<b>MECHANICAL</b>	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 85 mm
WEIGHT	Approx. 22 g
CONNECTOR	RSMA

### TYPICAL SWR CURVE





## FLX 2412/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 2500 MHz Band

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the ISM, RLAN, WLAN systems.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

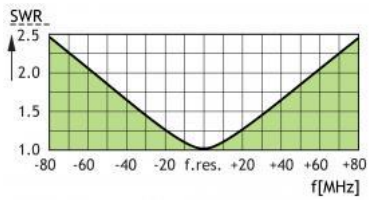
TYPE	PRODUCT NO.
FLX 2412/...-FME	140000223

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 2412/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	To be specified within 2300 - 2500 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 100$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass
COLOUR	Black

TOTAL HEIGHT	Approx. 100 mm
WEIGHT	Approx. 22 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVE







## FLX 1812/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 1800 MHz Band

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

### DESCRIPTION

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the DCS-1800/PCN cellular system and for the DECT cordless telephone system.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY	PURPOSE/ SYSTEM
FLX 1812/DCS-FME	140000220	1710 - 1880 MHz	DCS-1800/PCN cellular system
FLX 1812/DECT-FME	140000219	1880 - 1900 MHz	DECT cordless telephone

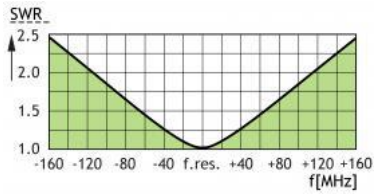
Special frequencies may be quoted on request.

### SPECIFICATIONS

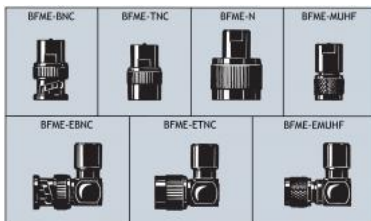
ELECTRICAL	
MODEL	FLX 1812/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	Center frequency to be stated within 1700-1900 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 200$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	5 W
MECHANICAL	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass

COLOUR	Black
TOTAL HEIGHT	Approx. 115 mm
WEIGHT	Approx. 25 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVE



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FLX 1812 is also available with SMA male connector, but in this case with fixed, nonexchangeable connector (not FME-connection system). Information on this special version on request.



## FLX 1300/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 1300 MHz Band

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

### DESCRIPTION

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Delivered factory tuned to customer specified frequency.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

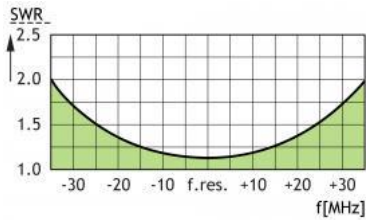
TYPE	PRODUCT NO.
FLX 1300/...-FME	140000218

### SPECIFICATIONS

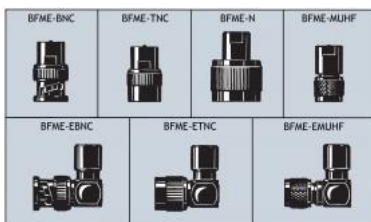
ELECTRICAL	
MODEL	FLX 1300/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	1300 MHz band (1200 - 1300 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 150 mm

WEIGHT	Approx. 25 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### TYPICAL SWR CURVE



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FLX 1300 is also available with SMA male connector, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on this special version on request.



## ELF 900/...-TNC

- Flexible skirt dipole antenna element built into an elastic shroud of hard-wearing and environment-proof plastics.
- “Elevated feed”  $\frac{1}{2} \lambda$  dipole antenna element - groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a modern “High-Tech” design.
- Delivered factory tuned to customer’s specified frequency or cellular system.
- Provided with TNC (male) connector.

### ORDERING DESIGNATIONS

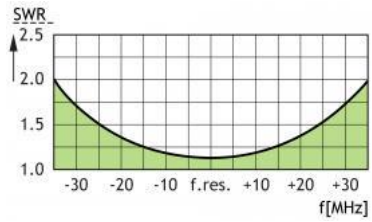
TYPE	PRODUCT NO.	FREQUENCY
ELF 900/...-TNC	140000212	To be stated within 850 - 960 MHz
ELF 900/h-TNC	140000604	880 - 960 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	ELF 900/...-TNC
ANTENNA TYPE	Elevated feed $\frac{1}{2} \lambda$ skirt dipole antenna for portable equipment
FREQUENCY	Models within 850 - 960 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber Brass
COLOUR	Black

TOTAL HEIGHT	Approx. 210 mm
WEIGHT	Approx. 40 g
CONNECTOR	TNC

### TYPICAL SWR CURVE





## FLX 70/TETRA-EADS

Flexible Antenna with connector specially designed for Siemens TETRA Portable Radios

- Flexible antenna made of steel wire covered with silicone tube.
- Full-size  $\frac{1}{4} \lambda$  whip.

### DESCRIPTION

- Highest quality materials.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for **Siemens Portativ SMART** and **SiemensEADS G2 SMART**.

### ORDERING DESIGNATIONS

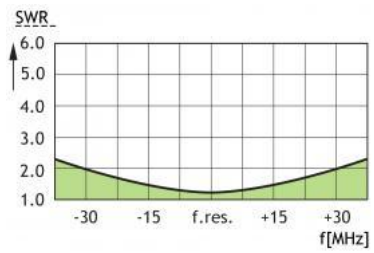
TYPE	PRODUCT NO.
FLX 70/TETRA-EADS	140000158

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 70/TETRA-EADS
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	TETRA band 380 - 410 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 60$ MHz @ SWR $\leq 2.0$
SWR	$< 2$ when mounted directly on portable equipment
MAX. POWER	200 W
MECHANICAL	

MATERIALS	Silicone tube over steel wire Weather- and shockproof plastics
COLOUR	Black
TOTAL HEIGHT	Approx. 155 mm
WEIGHT	Approx. 18 g
CONNECTOR	"EADS"

### TYPICAL SWR CURVE







## ELF 900/1800-TNC

### Dual-frequency

- Flexible skirt dipole antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.
- “Elevated feed”  $\frac{1}{2} \lambda$ -dipole antenna element – groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a modern “High-Tech” design.
- Provided with TNC (male) connector.

### ORDERING DESIGNATIONS

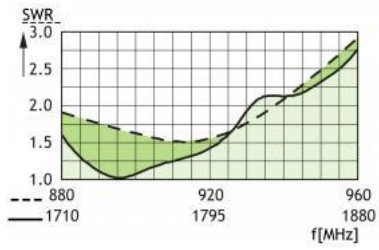
TYPE	PRODUCT NO.
ELF 900/1800-TNC	140000209

### SPECIFICATIONS

ELECTRICAL	
MODEL	ELF 900/1800-TNC
ANTENNA TYPE	Dual-frequency elevated feed $\frac{1}{2} \lambda$ skirt dipole antenna for portable equipment
FREQUENCY	880 – 960 MHz (EGSM/NMT-900) and 1710 – 1880 MHz (DCS-1800/PCN)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	900 MHz: $\geq 65$ MHz @ SWR $\leq 2.0$ (typ.) 1800 MHz: $\geq 150$ MHz @ SWR $\leq 2.3$ (typ.)
SWR	< 1.5 @ f. res. at 900 MHz < 1.1 @ f. res. at 1800 MHz
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber Brass

COLOUR	Black
TOTAL HEIGHT	Approx. 210 mm
WEIGHT	Approx. 40 g
CONNECTOR	TNC (male)

### TYPICAL SWR CURVE





## FLX 70/...-IC-F61

### Flexible Antenna for ICOM Portable Equipment in the 70 cm Band

- Flexible antenna made of steel wire covered with silicone tube.
- Full-size  $\frac{1}{4} \lambda$  whip.

## DESCRIPTION

- Highest quality materials.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for ICOM IC-F61 (450 MHz band).

## ORDERING DESIGNATIONS

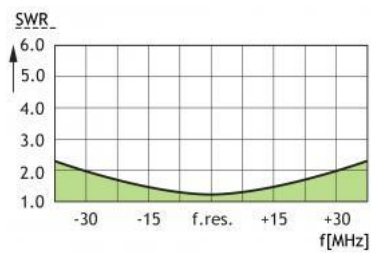
TYPE	PRODUCT NO.	FREQUENCY
FLX 70/s-IC-F61	140000168	380 - 430 MHz
FLX 70/l-IC-F61	140000376	400 - 450 MHz
FLX 70/h-IC-F61	140000167	420 - 470 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 70/...-IC-F61
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	200 W

MECHANICAL	
MATERIALS	Silicone tube over steel wire Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 200 mm (dep. on type)
WEIGHT	Approx. 25 g
CONNECTOR	SMA (male) special for IC-F61

### TYPICAL SWR CURVE





## FLX 70/...-GP 300

### Flexible Antenna for Portable Equipment in the 70 cm Band

- Flexible antenna made of steel wire covered with silicone tube.
- Full-size  $\frac{1}{4} \lambda$  whip.

### DESCRIPTION

- Highest quality materials.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (450 MHz band) etc.

### ORDERING DESIGNATIONS

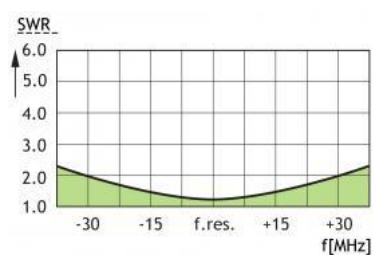
TYPE	PRODUCT NO.	FREQUENCY
FLX 70/s-GP 300	140000374	380 - 430 MHz
FLX 70/l-GP 300	140000375	400 - 450 MHz
FLX 70/h-GP 300	140000163	420 - 470 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 70/...-GP 300
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	< 2 when mounted directly on portable equipment

MAX. POWER	200 W
MECHANICAL	
MATERIALS	Silicone tube over steel wire Weather- and shockproof plastics Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	Approx. 200 mm (dep. on type)
WEIGHT	Approx. 25 g
CONNECTOR	1/4"-32 UNEF

### TYPICAL SWR CURVE





## FLX 400/900-SMA

End-Fed  $\frac{1}{2} \lambda$  Whip on 900 MHz and  $\frac{1}{4} \lambda$  Whip on 400 MHz for Portable Equipment

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip on 900 MHz, and  $\frac{1}{4} \lambda$  whip on 400 MHz.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain on 900 MHz compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Provided with SMA male connector.

### ORDERING DESIGNATIONS

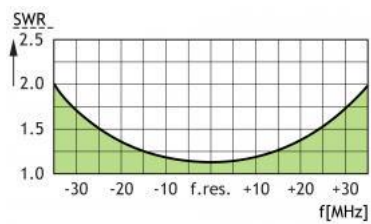
TYPE	PRODUCT NO.
FLX 400/900-SMA	140000214

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 400/900-SMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ on 900 MHz and $\frac{1}{4} \lambda$ on 400 MHz antenna for portable equipment
FREQUENCY	400 MHz band: 270 - 450 MHz 900 MHz band: 830 - 920 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB on 900 MHz (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	400 MHz: $\geq 180$ MHz @ SWR $\leq 5.0$ 900 MHz: $\geq 90$ MHz @ SWR $\leq 2.0$
SWR	< 1.3 @ f. res.

MAX. POWER	25 W
MECHANICAL	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 180 mm
WEIGHT	Approx. 30 g
CONNECTOR	SMA (male)

### TYPICAL SWR CURVE







## BA 160/GPS

### Covert Antenna

- Highly flexible covert coax antenna with silica fibre sleeving.
- $\frac{1}{2} \lambda$  skirt dipole antenna.

- Covert flexible body antenna, supporting free movement.
- Highest quality materials in an elegant design.
- Also useable for GPS reception.

## ORDERING DESIGNATIONS

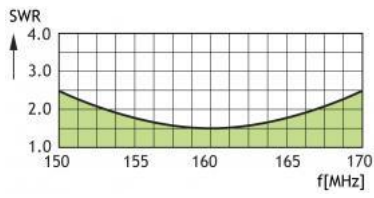
TYPE	PRODUCT NO.
BA 160/GPS	140000434

## SPECIFICATIONS

ELECTRICAL	
MODEL	BA 160/GPS
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna
FREQUENCY	150 - 170 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	6 dBi
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2.5 when mounted in coat collar
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Coax cable with silica fibre sleeving
COLOUR	White
TOTAL HEIGHT	860 mm
WEIGHT	Approx. 232 g
CONNECTOR	SMA (male)
MOUNTING	Attached to clothing with two safety pins



### TYPICAL SWR CURVE





### AN 864

Helical Antenna Especially Accomodated to the Stornophone 800  
Handportable for the 450 MHz Band

- Short conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

#### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Nice and compact design.
- Especially designed for the Stornophone CQP 800
- (450 MHz band).

#### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
AN 864	140000155

#### SPECIFICATIONS

ELECTRICAL	
MODEL	AN 864
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna
FREQUENCY	Tunable 406 - 470 MHz (tuning done in handportable)
POLARIZATION	Vertical
SWR	$\leq 1.5$
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber
COLOUR	Black
TOTAL HEIGHT	Approx. 51 mm
WEIGHT	Approx. 16 g
CONNECTOR	M 6 x 0.75 thread stud for Stornophone CQP 800 (450 MHz)



## AN 4113/...

Helical Antenna Especially Accomodated to the Stornophone 4000  
Handportable for the 150 MHz Band

- Flexible, conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

### DESCRIPTION

- Optimum performance compared to physical dimensions.
- Nice and compact design.
- 5 different models covering band segments of 10 MHz within 145 - 175 MHz.
- Especially designed for the Stornophone CQP 4000 (150 MHz band).

### ORDERING DESIGNATIONS

MODEL	PRODUCT NO.	FREQUENCY RANGE
AN 4113 A	140000363	145 - 155 MHz
AN 4113 B	140000086	150 - 160 MHz
AN 4113 C	140000351	155 - 165 MHz
AN 4113 D	140000364	160 - 170 MHz
AN 4113 E	140000087	165 - 175 MHz

### SPECIFICATIONS

ANTENNA DESIGNATION	AN 4113 Y (Y: see model survey)
CUSTOMER PART NO.	AN 4113 A-E
PORTABLE EQUIPMENT	Stornophone CQP 4000 (150 MHz)
<b>ELECTRICAL</b>	
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna
FREQUENCY	140 - 175 MHz covered by 5 models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
SWR	$\leq 2.0$ within the 10 MHz segments
<b>MECHANICAL</b>	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber
COLOUR	Black



TOTAL HEIGHT	Approx. 140 mm
WEIGHT	Approx. 28 g
CONNECTOR	M6 x 0.75 thread stud



## ELF 2500/...-TNC

- Flexible skirt dipole antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.
- “Elevated feed”  $\frac{1}{2} \lambda$  dipole antenna element – groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a modern “High-Tech” design.
- Delivered factory tuned to customer’s specified frequency.
- Provided with TNC (male) connector.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
ELF 2500/...-TNC	140000211	2300 - 2500 MHz

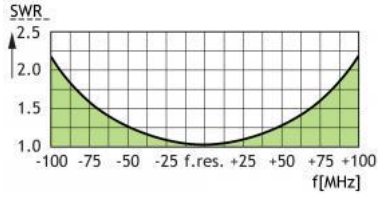
When ordering the antenna, please state the centre frequency.

### SPECIFICATIONS

ELECTRICAL	
ANTENNA TYPE	Elevated feed $\frac{1}{2} \lambda$ skirt dipole antenna for portable equipment
FREQUENCY	To be specified within 2300 – 2500 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 160$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
CONNECTOR	TNC
MATERIALS	Thermoplastic rubber Brass
COLOUR	Black
TOTAL HEIGHT	Approx. 190 mm

WEIGHT	Approx. 30 g
--------	--------------

### TYPICAL SWR CURVES





## ELF 1800/...-TNC

- Flexible skirt dipole antenna element built into an elastic shroud of hard-wearing and weather- and shockproof plastics.
- “Elevated feed”  $\frac{1}{2} \lambda$ -dipole antenna element - groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a modern “High-Tech” design.
- Delivered factory tuned to customer’s specified frequency or cellular system.
- Provided with TNC (male) connector.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY/CELLULAR NETWORK
ELF 1800/DCS-TNC	140000272	DCS-1800/PCN
ELF 1800/DECT-TNC	140000249	DECT

Special frequencies may be quoted on request.

### SPECIFICATIONS

ELECTRICAL	
MODEL	ELF 1800/...-TNC
ANTENNA TYPE	Elevated feed $\frac{1}{2} \lambda$ skirt dipole antenna for portable equipment
FREQUENCY	Center frequency to be stated within 1700 - 2000 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 160$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber



	Brass
COLOUR	Black
TOTAL HEIGHT	Approx. 190 mm
WEIGHT	Approx. 30 g
CONNECTOR	TNC (male)



## ELF 1300/...-TNC

- Flexible skirt dipole antenna element built into an elastic shroud of hard-wearing and environment-proof plastics.
- “Elevated feed”  $\frac{1}{2} \lambda$ -dipole antenna element - groundplane independent.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a modern “High-Tech” design.
- Delivered factory tuned to customer’s specified frequency.
- Provided with TNC (male) connector.

### ORDERING DESIGNATIONS

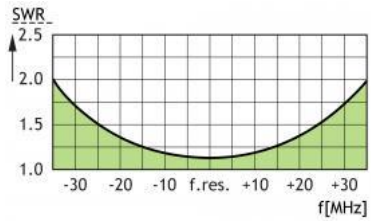
TYPE	PRODUCT NO.
ELF 1300/...-TNC	140000210

### SPECIFICATIONS

ELECTRICAL	
MODEL	ELF 1300/...-TNC
ANTENNA TYPE	Elevated feed $\frac{1}{2} \lambda$ skirt dipole antenna for portable equipment
FREQUENCY	1200 - 1300 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Thermoplastic rubber Brass
COLOUR	Black
TOTAL HEIGHT	Approx. 210 mm

WEIGHT	Approx. 40 g
CONNECTOR	TNC

### TYPICAL SWR CURVES





## EFSS 70/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 70 cm Band

- A highly professional antenna in stainless steel material.
- Full-size, end-fed  $\frac{1}{2} \lambda$  antenna whip.

### DESCRIPTION

- High gain and efficient decoupling from the portable equipment.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment. Highest quality materials in an elegant design.
- Delivered factory-tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

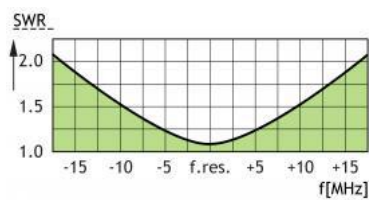
TYPE	FREQUENCY	PRODUCT NO.
EFSS 70/...-FME	380 - 470 MHz	140000186

### SPECIFICATIONS

ELECTRICAL	
MODEL	EFSS 70/...-FME
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band (380 - 470 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.0$
SWR	$< 1.5$ @ f. res.

MAX. POWER	25 W
<b>MECHANICAL</b>	
MATERIALS	Stainless steel Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 340 mm (dep. on type) / 13.3 in.
WEIGHT	Approx. 50 g / 0.11 lb.
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

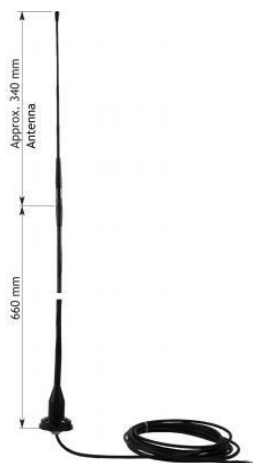
### TYPICAL SWR CURVE



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)



## EFD TETRA-1000/...

### End-Fed $\frac{1}{2} \lambda$ Dipole Antenna for TETRA Band

- Flexible  $\frac{1}{2} \lambda$  TETRA-antenna (models within 380 - 430 MHz).
- The end-fed dipole principle makes the antenna independent of groundplane.

## DESCRIPTION

- The radiating part of the antenna is placed on top of a glassfibre tube with shock spring approx. 660 mm above the mounting area.
- The large distance to the mounting area results in an almost perfect radiation, completely independent of the mounting area.
- Permanently attached 5 m RG 58 cable with FME(female) connector.
- Wide range of FME-accessories available.

## ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
EFD TETRA-1000/l	380 - 410 MHz	140000610
EFD TETRA-1000/h	410 - 430 MHz	140000580

## SPECIFICATIONS

ELECTRICAL	
MODEL	EFD TETRA-1000/...
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna
FREQUENCY	Models within 380 - 430 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dBd
BANDWIDTH	20 - 30 MHz dep. of model
SWR	< 2.0
MAX. POWER	25 W
MECHANICAL	
MOUNTING	14 mm / 0.55 in. dia. hole
MOUNTING THICKN.	0.7 → 4.5 mm / 0.028 → 0.18 in.

MATERIALS	Black-chromed brass Weather- and shockproof plastics Polyethylene covered flexible steel wire Cu-nite brass, seawater resistant Spring: Black-chromed stainless steel
COLOUR	Black
TEMP. RANGE	-50° C → +70° C
CONNECTOR	5 m RG 58 permanently attached cable with FME (female)
RECOMMENDED INSTALL. TORQUE	8.5 ± 1 Nm
HEIGHT	Approx. 1000 mm / 39.37 in.
OUTER HEIGHT (Mount)	16 mm / 0.63 in.
WIDTH/LENGTH (Mount)	ø55 mm / ø2.17 in.
WEIGHT	Approx. 500 g / 1.10 lb.

### FME-SYSTEM ACCESSORIES

FME-CABLES	
TYPE	PRODUCT NO.
1 m FME	130000437
2 m FME	130000447
3 m FME	130000457
4 m FME	130000466
5 m FME	130000474
6 m FME	130000483
4 m FME-white	110000064
6 m FME-white	110000066
12 m FME-white	110000068
18 m FME-white	110000069
FME-CONNECTORS	
TYPE	PRODUCT NO.
FME-FME	130000583
FME-P (Prolongation)	130000565
FME-N	130000571
FME-FSMA (Female-SMA)	130000578
FME-BNC	130000566
FME-TNC	130000569
FME-UHF	130000572
FME-MUHF	130000573

(Mini-UHF)	
FME-EMUHF (Elbow-MUHF)	130000582
FME-EBNC (Elbow-BNC)	130000580
FME-ETNC (Elbow-TNC)	130000581
FME-SMA	130000577

For further information about other types of FME-cables and FME-connectors, please compare the cable and connector data sheets under accessories.

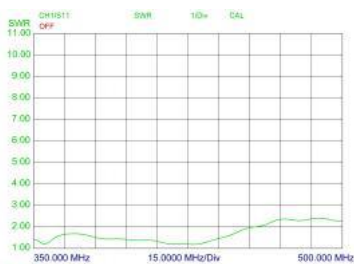


## MOUNTING

The gasket should be entirely supported by the mounting plane.

Do not use sealer on rubber gasket or other places.

## TYPICAL SWR CURVE







## EFD 4912-SMA

### End-Fed $\frac{1}{2} \lambda$ Dipole Antenna with SMA-Connector for Portable Equipment

- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.

## DESCRIPTION

- High gain and efficient decoupling from the portable equipment due to half-wave design.
- Highest quality materials in a long-lasting and durable design.
- Provided with SMA (male) connector.

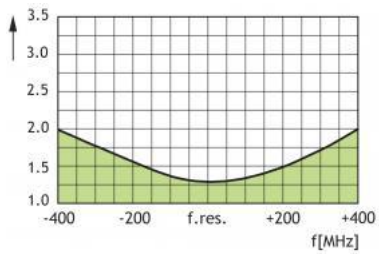
## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
EFD 4912-SMA	140000433

## SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 4912-SMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	4700 - 5100 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 400$ MHz @ SWR $\leq 1.6$
SWR	$< 1.3$ @ f. res.
MAX. POWER	20 W
MECHANICAL	
MATERIALS	Black cover POM Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 70 mm
WEIGHT	Approx. 25 g
CONNECTOR	SMA (male)

### TYPICAL SWR CURVES



## EFD 345

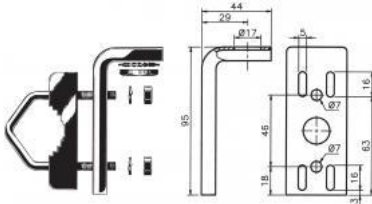
### End-Fed $\frac{1}{2} \lambda$ Dipole Antenna for Portable Equipment

- Black-chromed stainless steel whip with shock spring.
- Full-size, end-fed  $\frac{1}{2} \lambda$  antenna whip.



## DESCRIPTION

- High gain and efficient decoupling from the vehicle.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.



## ORDERING DESIGNATIONS

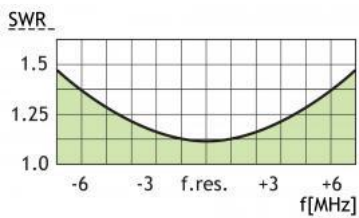
TYPE	PRODUCT NO.
EFD 345	140000156
YA Mounting Bracket	110000032

## SPECIFICATIONS

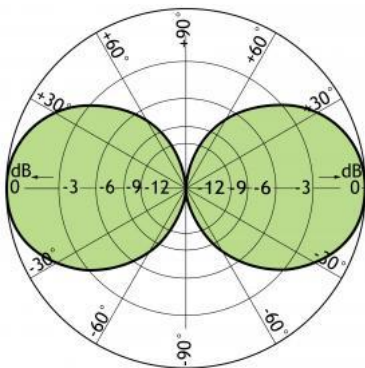
ELECTRICAL	
MODEL	EFD 345
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	345 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)

	0 dBd
SWR	< 1.3 @ f. res.
MAX. POWER	25 W
<b>MECHANICAL</b>	
MATERIALS	Black-chromed stainless steel Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 440 mm
WEIGHT	Approx. 160 g
CONNECTOR	N (female)

### TYPICAL SWR CURVE



### TYPICAL RADIATION PATTERN (E-PLANE)





## EFD 2R/...-TNC

### 5 dB Portable Antenna for the 160 MHz Band

- End-fed half-wave dipole with a black-chromed, conical stainless steel whip.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  portable antenna whip on the same equipment.

## DESCRIPTION

- Groundplane independent due to half-wave design.
- Delivered factory tuned to /l, /m or /h band. See ordering designations.
- Provided with TNC (male) connector.

## ORDERING DESIGNATIONS

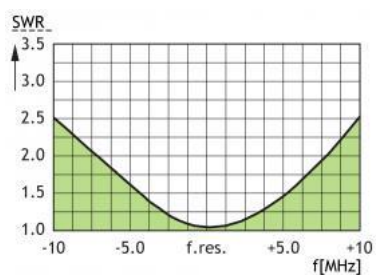
TYPE	PRODUCT NO.	FREQUENCY
EFD 2R/l-TNC	140000088	144 - 160 MHz
EFD 2R/m-TNC	140000089	155 - 170 MHz
EFD 2R/h-TNC	140000090	160 - 175 MHz

## SPECIFICATIONS

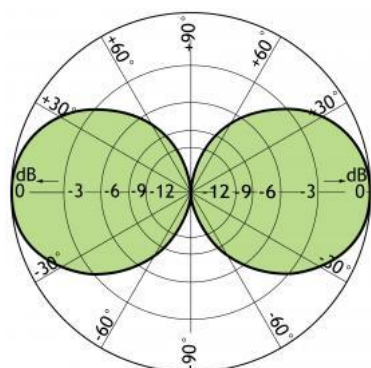
ELECTRICAL	
MODEL	EFD 2R/...-TNC
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ dipole mobile antenna
FREQUENCY	2 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 15$ MHz @ SWR $\leq 2.5$
SWR	< 1.3 @ f. res.

MAX. POWER	25 W
MECHANICAL	
MATERIALS	Black-chromed, conical stainless steel Black-chromed brass
COLOUR	Black
HEIGHT	Approx. 960 mm
WEIGHT	Approx. 100 g
CONNECTOR	TNC (male)

### TYPICAL SWR CURVES



### TYPICAL RADIATION PATTERN (E-PLANE)





### EFD 2412/...-SMA

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with SMA-Connector for Portable Equipment in the 2400 MHz Band

- End-fed  $\frac{1}{2} \lambda$  whip – groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

#### DESCRIPTION

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the ISM, RLAN, WLAN systems.
- Provided with SMA (male) connector.

#### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
EFD 2412/...-SMA	140000225

When ordering the antenna, please state the centre frequency.

#### SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 2412/...-SMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	To be specified within 2300 – 2500 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)

BANDWIDTH	$\geq 100$ MHz @ SWR $\leq 1.7$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
<b>MECHANICAL</b>	
MATERIALS	Black cover POM Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 110 mm
WEIGHT	Approx. 22 g
CONNECTOR	SMA (male)





## EFD 2412/...-RSMA

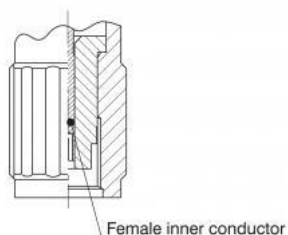
End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with RSMA-connector for Portable Equipment in the 2400 MHz Band

- End-fed  $\frac{1}{2} \lambda$  whip – groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

### DESCRIPTION

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the ISM, RLAN, WLAN systems.
- Provided with RSMA connector.

### RSMA CONNECTOR DETAILS



### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
EFD 2412/...-RSMA	140000229

When ordering the antenna, please state the centre frequency.

### SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 2412/...-RSMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	To be specified within 2350 - 2550 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)

	on the same equipment)
BANDWIDTH	$\geq 100$ MHz @ SWR $\leq 1.7$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
<b>MECHANICAL</b>	
MATERIALS	Black cover POM Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 110 mm
WEIGHT	Approx. 22 g
CONNECTOR	RSMA



## EFD 2412/2450-SMA GOLD

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with SMA-Connector for Portable Equipment in the 2450 MHz Band

- End-fed  $\frac{1}{2} \lambda$  whip – groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

### DESCRIPTION

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Models available for the ISM, RLAN, WLAN systems.
- Provided with SMA (male) connector.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
EFD 2412/2450-SMA GOLD	140000224

### SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 2412/2450-SMA GOLD
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	2400 - 2500 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 100$ MHz @ SWR $\leq 1.8$
SWR	$< 1.3$ @ 2450 MHz
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Black cover POM Black-chromed brass gold plated
COLOUR	Black and gold
TOTAL HEIGHT	Approx. 110 mm



WEIGHT	Approx. 22 g
CONNECTOR	SMA (male)



## EFD 200R/...-TNC

### 5 dB Portable Antenna for the 200 MHz Band

- End-fed half-wave dipole with a black-chromed, conical stainless steel whip.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  portable antenna whip on the same equipment.

## DESCRIPTION

- Groundplane independent due to half-wave design.
- Delivered factory tuned to /l, /m or /h band. See ordering designations.
- Provided with TNC (male) connector.

## ORDERING DESIGNATIONS

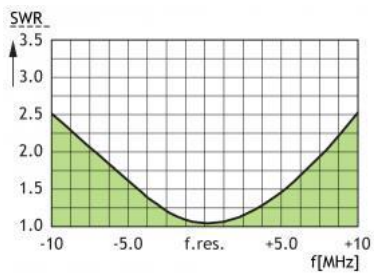
TYPE	PRODUCT NO.	FREQUENCY
EFD 200R/l-TNC	140000096	185 - 200 MHz
EFD 200R/m-TNC	140000097	200 - 215 MHz
EFD 200R/h-TNC	140000092	215 - 230 MHz

## SPECIFICATIONS

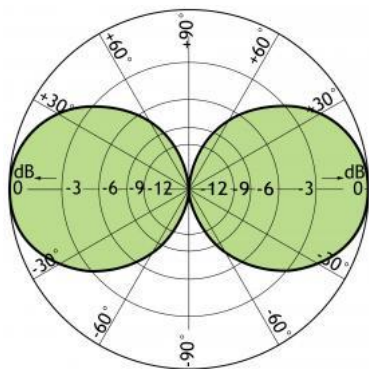
ELECTRICAL	
MODEL	EFD 200R/...-TNC
ANTENNA TYPE	TYPE End-fed $\frac{1}{2} \lambda$ dipole mobile antenna
FREQUENCY	2 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 15$ MHz @ SWR $\leq 2.0$
SWR	$< 1.3$ @ f. res.

MAX. POWER	25 W
MECHANICAL	
MATERIALS	Black-chromed, conical stainless steel Black-chromed brass
COLOUR	Black
HEIGHT	Approx. 750 mm (dep. on type)
WEIGHT	Approx. 70 g
CONNECTOR	TNC (male)

### TYPICAL SWR CURVES



### TYPICAL RADIATION PATTERN (E-PLAN)





## EFD 1800/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with FME-Connector for Portable Equipment in the 1800 - 1880 MHz Band

- End-fed  $\frac{1}{2} \lambda$  whip in the 1800 - 1880 MHz band - groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.
- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.

### DESCRIPTION

- Highest quality materials in a long-lasting and durable design.
- Provided with FME (female) connector.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
EFD 1800/...-FME	140000404	1800 - 1880 MHz

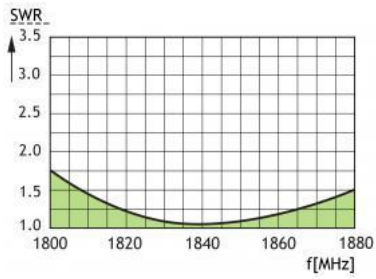
### SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 1800/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	1800 - 1880 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	< 2 (1800 - 1880 MHz)
SWR	< 1.3 @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Black cover HDPE Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 135 mm
WEIGHT	Approx. 25 g

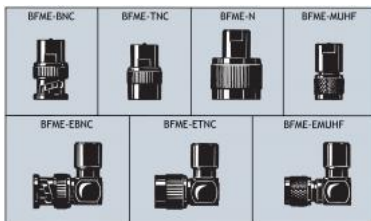
CONNECTOR

FME (female)

### TYPICAL SWR CURVES



### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)





## EFD 1800/DECT-SMA

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with SMA-Connector for Portable Equipment in the DECT Band

- End-fed  $\frac{1}{2} \lambda$  whip in the DECT band - groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

### DESCRIPTION

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Provided with SMA (male) connector.

### ORDERING DESIGNATIONS

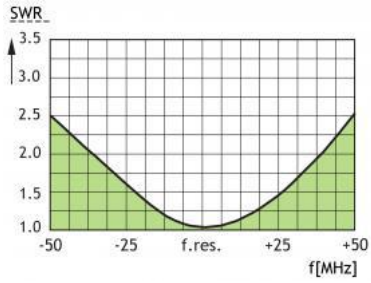
TYPE	PRODUCT NO.
EFD 1800/DECT-SMA	140000154

### SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 1800/DECT-SMA
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	1880 - 1900 MHz (DECT)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 1.5$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Black cover POM Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 135 mm
WEIGHT	Approx. 25 g

CONNECTOR	SMA (male)
-----------	------------

### TYPICAL SWR CURVES





## EFD 1/315 MHz-FME

### End-Fed $\frac{1}{2} \lambda$ Dipole Antenna with Universal FME-Connection System

- Sturdy, conical, flexible rubber antenna.
- Full-size, end-fed  $\frac{1}{2} \lambda$  antenna whip.
- Highest quality materials – designed for “wear and tear”.

## DESCRIPTION

- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

## ORDERING DESIGNATIONS

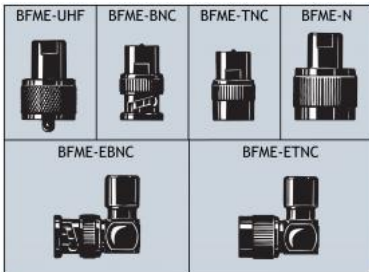
TYPE	PRODUCT NO.
EFD 1/315 MHz-FME	140000450

## SPECIFICATIONS

ELECTRICAL	
MODEL	EFD 1/315 MHz-FME
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna
FREQUENCY	315 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dBd
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.5$
SWR	$< 1.3$ @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 430 mm

WEIGHT	Approx. 80 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

**RECOMMENDED BFME-CONNECTORS**



(To be ordered separately)



## EFD 70/...-FME

End-Fed  $\frac{1}{2} \lambda$  Dipole Antenna with Universal FMEConnection System for Portable Equipment in the 70 cm Band

### DESCRIPTION

- Sturdy, conical, flexible rubber antenna.
- Full-size, end-fed  $\frac{1}{2} \lambda$  antenna whip.

### Description

- High gain and efficient decoupling from the portable equipment.
- 5 dB gain (typ.) compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials – designed for “wear and tear”.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-EBNC and BFME-ETNC.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
EFD 70/...-FME	140000157
EFD 70/...-FME/GND	140000490

### SPECIFICATIONS

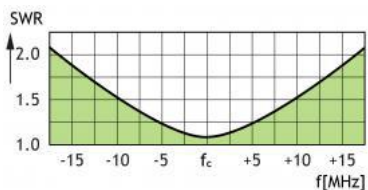
ELECTRICAL	
MODEL	EFD 70/...-FME
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band (380 – 470 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.5$
SWR	$< 1.3$ @ $f_c$
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Steelwire moulded in thermoplastic rubber

	Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 310 mm (dep. on type)
WEIGHT	Approx. 60 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

**PLEASE NOTE**

The EFD 70/...-FME is also available in an antistatic protected version.  
The parts of the EFD 70/...-FME/GND (see ordering designations) are DC-grounded, and the connector shows a DC-short.  
The mechanical length is approx. 50 mm longer in this case.

**RECOMMENDED BFME-CONNECTORS**





## HX 4/...-MTS2000

### Helical Antenna for Portable Equipment in the 4 m Band

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.

## DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with connector for Motorola MTS2000 series (GP900/GP1200/MTS2000).

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.	FREQUENCY
HX 4/l-MTS2000	140000257	66 - 76 MHz
HX 4/BOS-MTS2000	140000256	Tx 74 - 77 MHz / Rx 84 - 87 MHz
HX 4/m-MTS2000	140000301	72 - 82 MHz
HX 4/h-MTS2000	140000355	78 - 88 MHz

## SPECIFICATIONS

ELECTRICAL	
MODEL	HX 4/...-MTS2000
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	Models within 66 - 88 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	$\geq 6$ MHz at $f_c$ @ SWR $\leq 3.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black



TOTAL HEIGHT	Approx. 260 mm (dep. on type)
WEIGHT	Approx. 80 g
CONNECTOR	SMA modified for Motorola MTS2000





## FLX 70/...-FME

Antenna with Universal FME-Connection System for portable Equipment in the 70 cm Band

- Flexible antenna made of steel wire covered with silicone tube.
- Full-size  $\frac{1}{4} \lambda$  whip.

### DESCRIPTION

- Highest quality materials.
- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

### ORDERING DESIGNATIONS

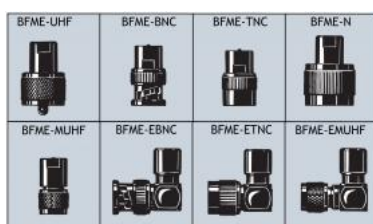
TYPE	PRODUCT NO.	FREQUENCY
FLX 70/s-FME	140000166	380 - 430 MHz
FLX 70/l-FME	140000170	400 - 450 MHz
FLX 70/h-FME	140000159	420 - 470 MHz

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX 70/...-FME
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment

MAX. POWER	200 W
MECHANICAL	
MATERIALS	Silicone tube over steel wire Weather- and shockproof plastics
COLOUR	Black
TOTAL HEIGHT	Approx. 200 mm (dep. on type)
WEIGHT	Approx. 25 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

### PLEASE NOTE

The FLX 70 is also available with SMA male connector and different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## FSP 2/...-GP 300

### "StraightFlex" Antenna for Portable Equipment in the 2 m Band

- Highly flexible, polyethylene covered StraightFlex steel wire.
- Full size  $\frac{1}{4} \lambda$  antenna whip.

- Highest quality materials in an elegant and slender design.
- Delivered factory tuned and tested to ensure minimum SWR and optimum performance.
- Especially designed for Motorola GP 300, GP 344, GP 360 and GP 388 (150 MHz band) etc

TYPE	PRODUCT NO.	FREQUENCY
FSP 2/l-GP 300	140000107	144 - 164 MHz
FSP 2/h-GP 300	140000099	155 - 175 MHz

ELECTRICAL	
MODEL	FSP 2/...-GP 300
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	2 m band covered by two models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.5$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	100 W
MECHANICAL	
MATERIALS	Polyethylene covered flexible steel wire Weather- and shockproof plastics Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	Approx. 480 mm (dep. on type)
WEIGHT	Approx. 35 g
CONNECTOR	1/4"-32 UNEF



## FLX 900/...-FME

End-Fed 1/2 Dipole Antenna with Universal FME-Connection System for Portable Equipment in the 900 MHz band

- Flexible antenna made of steel wire covered with black silicone tubing.
- End-fed  $\frac{1}{2} \lambda$  whip - groundplane independent.
- High gain and efficient decoupling from the portable equipment due to half-wave design.

- 5 dB gain compared to a  $\frac{1}{4} \lambda$  antenna whip on the same equipment.
- Highest quality materials in a long-lasting and durable design.
- Delivered factory tuned to customer specified frequency or cellular system.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procom's line of black FME-connectors (to be ordered separately): BFME-BNC, BFME-TNC, BFME-N, BFME-MUHF, BFME-EBNC, BFME-ETNC and BFME-EMUHF.

TYPE	PRODUCT NO.	FREQUENCY
FLX 900/...-FME	140000217	820 - 960 MHz

ELECTRICAL	
MODEL	FLX 900/...-FME
ANTENNA TYPE	End-fed $\frac{1}{2} \lambda$ antenna for portable equipment
FREQUENCY	900 MHz band (820 - 960 MHz)
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	5 dB (compared to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 70$ MHz @ SWR $\leq 2.0$
SWR	< 1.3 @ f. res.
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Silicone tube over flexible steel wire Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 170 mm (dep. on type)
WEIGHT	Approx. 25 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

### RECOMMENDED BFME-CONNECTORS



(To be ordered separately)

**PLEASE NOTE**

The FLX 900 is also available with SMA male connector, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on this special version on request.



### HX 4/70...-FME

Helical Antenna with Universal FME-Connection System for Portable Equipment in the 4 m and 70 cm Bands

- Flexible, conical steel helix moulded in thermoplastic rubber.
- Significant reduction of length due to the helical principle.
- Optimum performance compared to physical dimensions.

- Delivered factory tuned and tested to ensure minimum SWR.
- Provided with universal FME-connection system for optimum flexibility and easily exchangeable connectors.
- Designed for use with the following of Procoms line of black FME-connectors (to be ordered separately): BFME-UHF, BFME-BNC, BFME-TNC and BFME-N.

TYPE	PRODUCT NO.
HX 4/70/...-FME	140000071

ELECTRICAL	
MODEL	HX 4/70/...-FME
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	80 MHz band: freq. to be stated within: 66...88 MHz 450 MHz band: freq. to be stated within: 380...450 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
BANDWIDTH	80 MHz: $\geq 6$ MHz @ SWR $\leq 3.0$ 450 MHz: $\geq 25$ MHz @ SWR $\leq 3.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in thermoplastic rubber Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	290 mm (dep. on type)



WEIGHT	Approx. 80 g
CONNECTOR	FME (female) (Exchangeable BFME-connectors to be ordered separately)

**TYPICAL SWR CURVE**

**RECOMMENDED BFME-CONNECTORS**

(To be ordered separately)

**PLEASE NOTE**

The HX 4/70 is also available with different thread studs, but in this case with fixed, non-exchangeable connector (not FME-connection system). Information on these special versions on request.



## HX 2/...-IC-F51

### Helical Antenna for ICOM Portable Equipment in the 2 m band

- Flexible, conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for ICOM IC-F51 (150 MHz band).

TYPE	PRODUCT NO.	FREQUENCY
HX 2/l-IC-F51	140000132	144 - 160 MHz
HX 2/m-IC-F51	140000133	152 - 168 MHz
HX 2/h-IC-F51	140000126	160 - 175 MHz

ELECTRICAL	
MODEL	HX 2/...-IC-F51
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	2 m band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 16$ MHz @ SWR $\leq 3.0$
SWR	< 1.5 when mounted directly on portable equipment
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Weather- and shockproof plastics Black-chromed brass
COLOUR	Black
TOTAL HEIGHT	Approx. 150 mm (dep. on type)
WEIGHT	Approx. 30 g
CONNECTOR	SMA (male) special for IC-F51





**TYPICAL SWR CURVES**

## FLX-W 70/...-SMA-STP8038

### Flexible Antenna for ICOM Portable Equipment in the 70 cm Band

- Flexible antenna made of RG 178 wire covered with shrink tube.
- Full-size  $\frac{1}{4} \lambda$  whip.

#### DESCRIPTION

- Highest quality materials.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Sepura Radio STP8038 (450 MHz band).

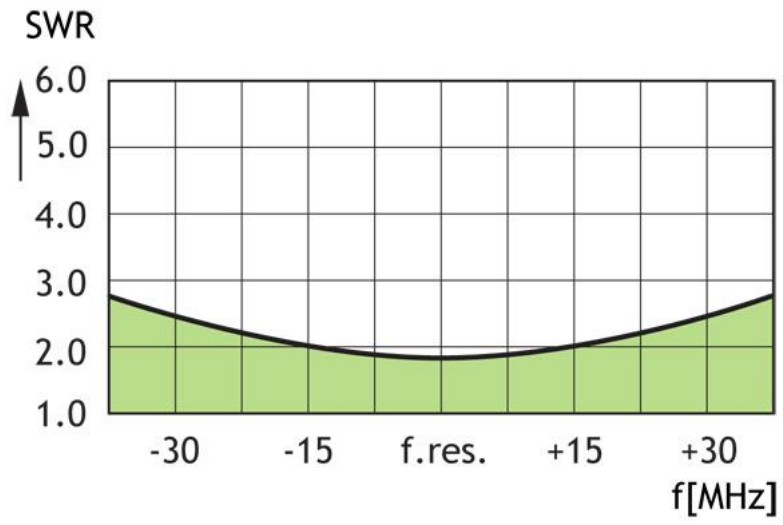
#### ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
FLX-W 70/405-SMA-STP8038	380 – 430 MHz	140000586
FLX-W 70/387.5-SMA-STP8038	362.5 – 412 MHz	140000600
FLX-W 70/395-SMA-STP8038	370 – 420 MHz	140000601

#### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX-W 70/...-SMA-STP8038
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 50$ MHz @ SWR $\leq 2.0$
SWR	$< 2$ when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Shrink tube over RG 178 wire 50 $\Omega$
COLOUR	Black
TOTAL HEIGHT	Approx. 170 mm / 6.69 in. (dep. on type)
WEIGHT	Approx. 5.5 g / 0.01 lb.
CONNECTOR	SMA (male) special for Sepura STP8038

### TYPICAL SWR CURVE



## FLX-P 450/336 MHz-P-SMA

Flexible Antenna for Portable Equipment in the 70 cm Band

### DESCRIPTION

- Flexible antenna made of piano wire covered with shrink tube.
- Full-size  $\frac{1}{4} \lambda$  whip.
- Highest quality materials.
- Delivered factory tuned and tested to ensure minimum SWR.

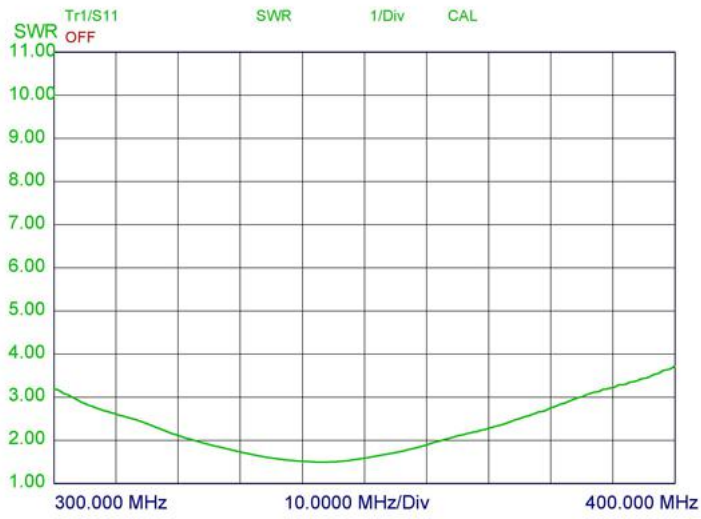
### ORDERING DESIGNATIONS

TYPE	FREQUENCY	PRODUCT NO.
FLX-P 450/336 MHz-P-SMA	336 - 339 MHz	140000625 (MOQ 500)

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX-P 450/336 MHz-P-SMA
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band / 336 - 339 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.0$
SWR	< 2 when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Shrink tube over piano wire
COLOUR	Black
TOTAL HEIGHT	Approx. 217mm / 8.54 in.
WEIGHT	Approx. 5.5 g / 0.02 lb.
CONNECTOR	SMA (male)

### TYPICAL SWR CURVE





## GA 30-88-MU5

Short Rubber Antenna with Matching Unit for the 30 - 88 MHz Range

- Small sturdy rubber antenna for short-range communication.

### DESCRIPTION

- Specially designed for portable two-way radio equipment.
- Highest quality materials ensure many years of trouble-free service, in tough environments.

### ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GA 30-88-MU5	140000047

### SPECIFICATIONS for whip inclusive of matching unit

ELECTRICAL	
MODEL	GA 30-88-MU5
ANTENNA TYPE	Short broad-band antenna for portable equipment
FREQUENCY	30 - 88 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
SWR	$\leq 10.0$
MAX. POWER	5 W
MECHANICAL	
MATERIALS	<p><b>Whip:</b> Steelwire moulded in thermoplastic rubber</p> <p><b>Matching unit:</b> Housing: Polypropylene TNC connector: Cu-nite plated brass</p>



COLOUR	Black
DIMENSIONS	Approx. $\varnothing$ 22 x 230 mm
WEIGHT	Approx. 80 g
CONNECTOR	TNC (male)

## TYPICAL SWR CURVE



## EFD-TETRA-1000-N-5mRG58

### End-Fed $\frac{1}{4} \lambda$ Dipole Antenna for TETRA Band

- Flexible  $\frac{1}{2} \lambda$  TETRA-antenna (410 - 430 MHz).
- The end-fed dipole principle makes the antenna independent of ground-plane.

## DESCRIPTION

- The radiating part of the antenna is placed on top of a glassfibre tube with shock spring approx. 660 mm above the mounting area.
- The large distance to the mounting area results in an almost perfect radiation, completely independent of the mounting area.
- Permanently attached 5m cable with FME(female) connector.
- Wide range of FME-accessories available.

## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
EFD-TETRA-1000-N-5mRG58	140000580

## SPECIFICATIONS

ELECTRICAL	
MODEL	EFD-TETRA-1000-N-5mRG58
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna
FREQUENCY	410 - 430 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARISATION	Vertical
GAIN	0 dBd
BANDWIDTH	20 MHz
SWR	< 2.0
MAX. POWER	25 W
MECHANICAL	
MOUNTING	14 mm / 0.55 in. dia. hole
MOUNTING THICKN.	0.7 → 4.5 mm / 0.028 → 0.18 in.
MATERIALS	Black-chromed brass Weather- and shockproof plastics Polyethylene covered flexible steel wire



	Cu-nite brass, seawater resistant Spring: Black chromed stainless steel
COLOUR	Black
TEMP. RANGE	-50° C → +70° C
CONNECTOR	5 m RG 58 permanently attached cable with FME (female)
RECOMMENDED INSTALL. TORQUE	8.5 ± 1 Nm
HEIGHT	1000 mm
OUTER HEIGHT (Mount)	16 mm / 0.63 in.
WIDTH/LENGTH (Mount)	ø55 mm / ø2.17 in.
WEIGHT	Approx. 500 g

### FME-SYSTEM ACCESSORIES

FME-CABLES	
TYPE	PRODUCT NO.
1 m FME	130000437
2 m FME	130000447
3 m FME	130000457
4 m FME	130000466
5 m FME	130000474
6 m FME	130000483
4 m FME-white	110000064
6 m FME-white	110000066
12 m FME-white	110000068
18 m FME-white	110000069
FME-CONNECTORS	
TYPE	PRODUCT NO.
FME-FME	130000583
FME-P (Prolongation)	130000565
FME-N	130000571
FME-FSMA (Female-SMA)	130000578
FME-BNC	130000566
FME-TNC	130000569
FME-UHF	130000572
FME-MUHF (Mini-UHF)	130000573

FME-EMUHF (Elbow-MUHF)	130000582
FME-EBNC (Elbow-BNC)	130000580
FME-ETNC (Elbow-TNC)	130000581
FME-SMA	130000577

For further information about other types of FME-cables and FME-connectors, please compare the cable and connector data sheets under accessories.

## **MOUNTING**

The gasket should be entirely supported by the mounting plane. Do not use sealer on rubber gasket or other places.



## BA-450/GPS

### Covert Body Antenna for TETRA Band

- Highly flexible covert coax antenna with silica fibre sleeving.
  - Reduced  $\frac{1}{2} \lambda$  skirt dipole antenna.
- 
- Covert flexible body antenna, supporting free movement.
  - Highest quality materials in an elegant design.
  - Also useable for GPS reception.

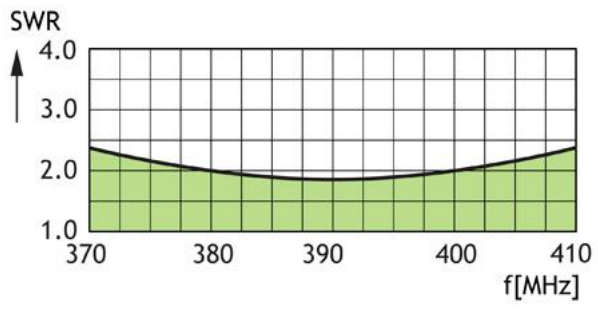
## ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
BA-450/GPS/380-410	140000608
BA-450/GPS/440-460	140000613
BA-450/GPS/450-470	140000607

## SPECIFICATIONS

ELECTRICAL	
MODEL	BA-450/GPS
ANTENNA TYPE	$\frac{1}{2} \lambda$ antenna
FREQUENCY	380 - 470 MHz covered by three models
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	6 dBi
BANDWIDTH	$\geq 30$ MHz @ SWR $\leq 2.5$
SWR	< 2.5 when mounted in coat collar
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Coax cable with silica fibre sleeving
COLOUR	Black
TOTAL HEIGHT	550 mm
WEIGHT	Approx. 18 g
CONNECTOR	SMA (male)
MOUNTING	Attached to clothing with two safety pins

### TYPICAL SWR CURVE





## FLX-P 450/336 MHz-P-TNC

Flexible Antenna for Portable Equipment in the 70 cm Band

### DESCRIPTION

- Flexible antenna made of piano wire covered with shrink tube.
- Full-size  $\frac{1}{4} \lambda$  whip.
- Highest quality materials.
- Delivered factory turned and tested to ensure minimum SWR.

### ORDERING DESIGNATIONS

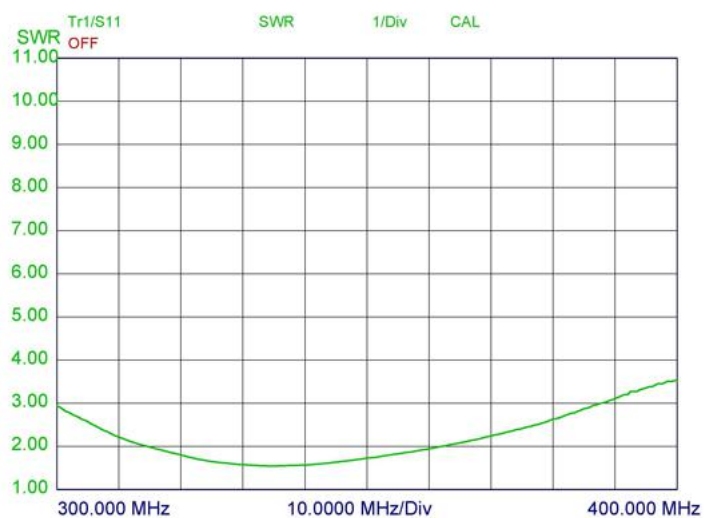
TYPE	FREQUENCY	PRODUCT NO.
FLX-P 450/336 MHz-P-TNC	336 - 339 MHz	140000624 (MOQ 500)

### SPECIFICATIONS

ELECTRICAL	
MODEL	FLX-P 450/336 MHz-P-TNC
ANTENNA TYPE	$\frac{1}{4} \lambda$ antenna for portable equipment
FREQUENCY	70 cm band / 336-339 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical

GAIN	0 dB (equal to a $\frac{1}{4} \lambda$ portable antenna)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.0$
SWR	$< 2$ when mounted directly on portable equipment
MAX. POWER	25 W
MECHANICAL	
MATERIALS	Shrink tube over piano wire
COLOUR	Black
TOTAL HEIGHT	Approx. 228 mm / 8.98 in.
WEIGHT	Approx. 6 g / 0.01 lb.
CONNECTOR	TNC (male)

### TYPICAL SWR CURVE





## HX 70/...-SMA-STP8038

### Helical Antenna for Portable Sepura Equipment in the 450 MHz Band

- Short conical steel helix moulded in flexible thermoplastic rubber.
- Reduced-size  $\frac{1}{4} \lambda$  helical antenna whip.

## DESCRIPTION

- Optimum performance compared to physical dimensions.
- Delivered factory tuned and tested to ensure minimum SWR.
- Especially designed for Sepura STP 8038.

## ORDERING DESIGNATIONS

TYPE NO.	FREQUENCY	PRODUCT NO.
HX 70/385-SMA-STP8038	370 - 400 MHz	140000581

## SPECIFICATIONS

ELECTRICAL	
MODEL	HX 70/...-SMA-STP8038
ANTENNA TYPE	Shortened $\frac{1}{4} \lambda$ helical antenna for portable equipment
FREQUENCY	370 - 400 MHz
IMPEDANCE	Nom. 50 $\Omega$
POLARIZATION	Vertical
GAIN	Approx. -3 dB (compared to a $\frac{1}{4} \lambda$ portable antenna on the same equipment)
BANDWIDTH	$\geq 20$ MHz @ SWR $\leq 2.0$
MAX. POWER	50 W
MECHANICAL	
MATERIALS	Steel helix moulded in flexible thermoplastic rubber Weather- and shockproof plastics Cu-nite brass
COLOUR	Black
TOTAL HEIGHT	Approx. 60 mm (dep. on type)
WEIGHT	Approx. 20 g
CONNECTOR	SMA male

PROCOM A/S

---



Smedetoften 12, 3600  
Frederikssund, Denmark