



DAS SOLUTIONS

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PRO-HPS... 380-2700-...

2, 3 & 4 Way Reactive High Power Splitters

- 2, 3 & 4 way high power splitter covering the 380-2700 MHz band.
- Excellent high power performance.

DESCRIPTION

- Low insertion loss and good impedance match.
- Low specified PIM.

Power splitters are frequently used in distributed antenna systems in buildings or tunnels. The power splitter splits the signal evenly and with minimal loss and reflections.

Application area: Antennas arrays; radiating cables and distributed antenna systems.

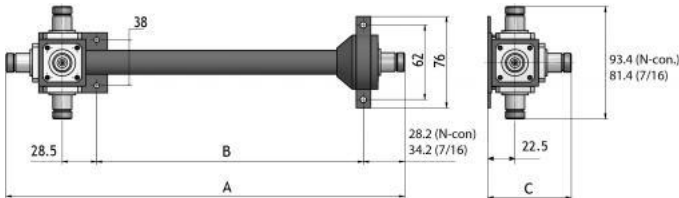
ORDERING DESIGNATIONS

TYPE	DESCRIPTION	PRODUCT NO.
PRO-HPS2 380-2700-N(f)	2-way splitter	200002404
PRO-HPS3 380-2700-N(f)	3-way splitter	200002453
PRO-HPS4 380-2700-N(f)	4-way splitter	200002472
PRO-HPS2 380-2700-7/16(f)	2-way splitter	200002519
PRO-HPS3 380-2700-7/16(f)	3-way splitter	200002520
PRO-HPS4 380-2700-7/16(f)	4-way splitter	200002521

SPECIFICATIONS

ELECTRICAL			
MODEL	PRO-HPS2 380-2700-...	PRO-HPS3 380-2700-...	PRO-HPS4 380-2700-...
FREQUENCY	380-2700 MHz	380-2700 MHz	380-2700 MHz
AMPLITUDE BALANCE	± 0.3 dB	± 0.3 dB	± 0.4 dB
SPLIT	1 : 2	1 : 3	1 : 4
SPLIT LOSS	3 dB	4.8 dB	6 dB
MAX. INPUT POWER	500 W	500 W	500 W
THROUGH LOSS	< 3.3 dB	< 5.1 dB	< 6.4 dB
IMPEDANCE	Nom. 50 Ω	Nom. 50 Ω	Nom. 50 Ω
INPUT SWR	≤ 1.3	≤ 1.3	≤ 1.3
IMD level	< -155 dBc (with N-connectors) < -160 dBc (with 7/16-connectors)		

COMPLIANCE			
N	RoHS, IP65		
7/16	RoHS, IP65		
MECHANICAL			
TEMP. RANGE	-30° C → +60° C		
CONNECTORS	N-female or 7/16-female		
DIMENSIONS (L x W x H)	Approx. 244 x 93 x 45 mm (Con. including)	Approx. 250 x 93 x 45 mm (Con. including)	Approx. 319 x 93 x 45 mm (Con. including)
WEIGHT	Approx. 570 g	Approx. 670 g	Approx. 770 g
Mounting	∅4.2 mm (4 holes)		



DIMENSION

TYPE	A	B	C
PRO-HPS2 380-2700-N(f)	244	162	45
PRO-HPS2 380-2700-7/16(f)	238	162	45
PRO-HPS3 380-2700-N(f)	301	191.5	45
PRO-HPS3 380-2700-7/16(f)	289	191.5	45
PRO-HPS4 380-2700-N(f)	331	249,7	69.2
PRO-HPS4 380-2700-7/16(f)	319	249,7	63.2



PRO-BBPHY 4/2-20-.. dB-N

Broad Band Power Divider / Combiner

- Two antennas connected to the same transmitter or receiver.
- Broad band power splitter for radio systems.

Description

- Combining two transmitters on the same antenna.
Note: The power splitter has to be mounted on an extra heat sink when used as a combiner. Max. 15 W per TX.
- Combining two signal generators.
- 30 W load built-in.

ORDERING DESIGNATIONS

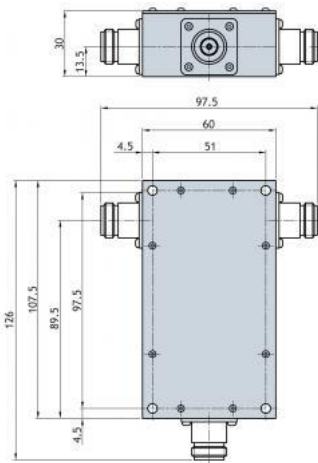
TYPE	PRODUCT NO.
PRO-BBMPHY 4/2-20-3 dB-N	210000291
PRO-BBMPHY 4/2-20-6 dB-N	210001240
PRO-BBMPHY 4/2-20-10 dB-N	210000289
PRO-BBMPHY 4/2-20-20 dB-N	210001241

SPECIFICATIONS

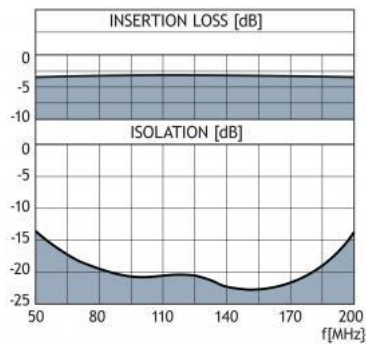
ELECTRICAL				
MODEL	PRO-BBPHY 4/2-20-.. dB-N			
	3 dB	6 dB	10 dB	20 dB
TYPE	Cascaded Wilkinson-hybrid			
FREQUENCY	70 - 175 MHz			
MAX. INPUT POWER	30 W when used as a power splitter - 15 W per channel when used as a hybrid combiner. Note: Extra cooling necessary when used as a hybrid combiner			
INSERTION LOSS	< 3.8 dB typ. < 3.4 dB	??	< 10 dB \pm 1.5 dB typ. < 10 dB \pm 1 dB	??
ISOLATION TX ₁ , TX ₂	> 16 dB 70 - 175 MHz, typ. > 20.5 dB	??	> 17 dB 70 - 175 MHz, typ. > 19 dB	??
PHASE TX ₁ , TX ₂	0°			
IMPEDANCE	Nom. 50 Ω			
LOAD	30 W load built-in			
SWR	< 1.5 all other ports terminated with 50 Ω (typically < 1.4)			

MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	126 (incl. conn.) x 97.5 (incl. conn.) x 30.3 mm
WEIGHT	Approx. 400 g

MOUNTING DETAIL



TYPICAL RESPONSE CURVE for 3 dB





PRO-BBPHY 4/146-470-20-N

Broad Band Power Divider 1:4

- Four antennas connected to the same transmitter or receiver.
- Broad band power splitter for radio systems.

Description

- Combining four transmitters on the same antenna.
Note: The power splitter has to be mounted on an extra heat sink when used as a combiner. Max. 15 W per TX.
- Built-in 30 W load.

ORDERING DESIGNATION

TYPE NO.	PRODUCT NO.
PRO-BBPHY 4/146-470-20-N	210000470

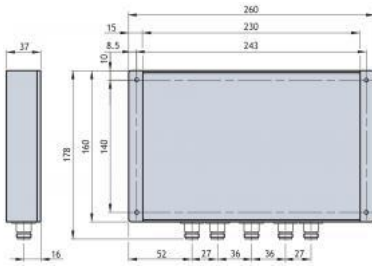
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-BBPHY 4/146-470-20-N
TYPE	Cascaded Wilkinson multisection hybrids
FREQUENCY	146 - 470 MHz
MAX. INPUT POWER	30 W when used as a power splitter - 15 W per channel when used as a hybrid combiner. Note: Extra cooling necessary when used as a hybrid combiner
INSERTION LOSS	< 8.5 dB
ISOLATION	> 11 dB, 146 - 220 MHz, > 18 dB, 220 - 470 MHz
IMPEDANCE	Nom. 50 Ω
LOAD	Built-in 30 W load
SWR	< 1.5 all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C \rightarrow +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	260 x 178 (incl. conn.) x 37 mm
WEIGHT	Approx. 800 g

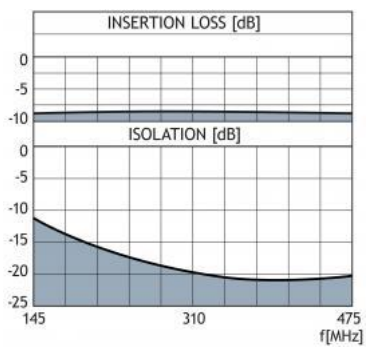
MOUNTING

∅4 mm (four holes)

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-BBPHY 2/70-20-6 dB-N

Broad Band Unsymmetrical Power Divider 1:4

- Used where unsymmetrical splitting of the signal is required.
- Two antennas connected to the same transmitter or receiver where 25% of the signal either comes from or is transmitted to one of the antennas.

Description

- Broad band power splitter for radio systems. Max. 30 W.
- 30 W load built-in.

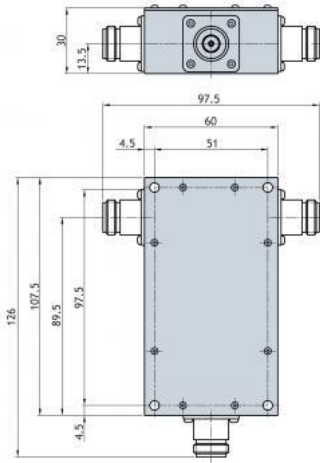
ORDERING DESIGNATION

TYPE NO.	PRODUCT NO.
PRO-BBPHY 2/70-20-6 dB-N	210000468

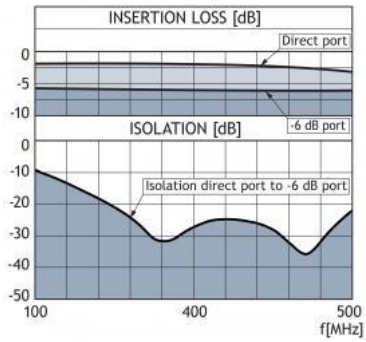
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-BBPHY 2/70-20-6 dB-N
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	146 - 470 MHz
MAX. INPUT POWER	30 W when used as a power splitter
INSERTION LOSS	Main port: Typically < 2.2 dB, max. 3.2 dB -6 dB port: 6 dB±0.5 dB (typically 6 dB±0.3 dB)
ISOLATION	> 14 dB, 146 - 470 MHz, typically > 20 dB
IMPEDANCE	Nom. 50 Ω
LOAD	30 W load built-in
SWR High power & input port	< 1.5 (typically ≤ 1.3 dB) all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	126 (incl. conn.) x 97.5 (incl. conn.) x 30.3 mm
WEIGHT	Approx. 400 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-BBPHY 2/70-20-3 dB-N

Broad Band Power Divider 1:2

- Two antennas connected to the same transmitter or receiver.
- Broad band power splitter for radio systems.

Description

- Combining two transmitters on the same antenna.
Note: The power splitter has to be mounted on an extra heat sink when used as a combiner. Max. 15 W per TX.
- Combining two signal generators.
- 30 W load built-in.

ORDERING DESIGNATION

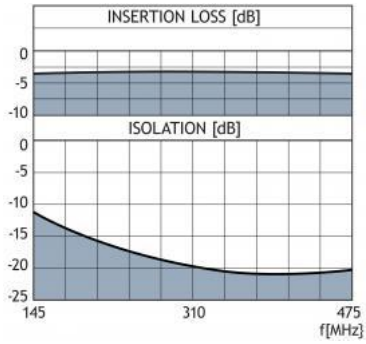
TYPE NO.	PRODUCT NO.
PRO-BBPHY 2/70-20-3 dB-N	210000282

SPECIFICATIONS

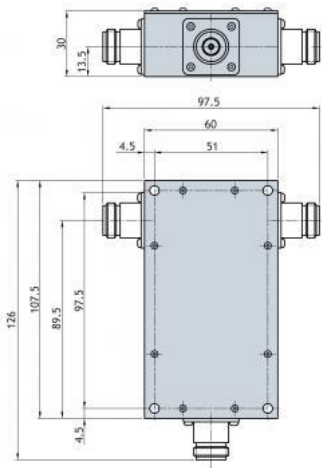
ELECTRICAL	
MODEL	PRO-BBPHY 2/70-20-3 dB-N
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	146 - 470 MHz
MAX. INPUT POWER	30 W when used as a power splitter - 15 W per channel when used as a hybrid combiner. Note: Extra cooling necessary when used as a hybrid combiner
INSERTION LOSS	< 4.5 dB
ISOLATION TX ₁ , TX ₂	> 11 dB, 146-470 MHz, typically > 17 dB
PHASE TX ₁ , TX ₂	0°
IMPEDANCE	Nom. 50 Ω
LOAD	30 W load built-in
SWR	< 1.5 all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	126 (incl. conn.) x 97.5 (incl. conn.) x 30.3 mm

WEIGHT	Approx. 400 g
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TYPICAL RESPONSE CURVE



MOUNTING DETAILS





RPD 145-470/800-1000-10-N

Couplers

- Coupler with 8 - 14 dB coupling covering the 2 m, 70 cm, GSM and GPS bands.

DESCRIPTION

- Very broad-banded performance.

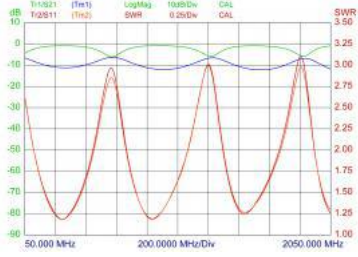
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
RPD 145-470/800-1000-10-N	210001193

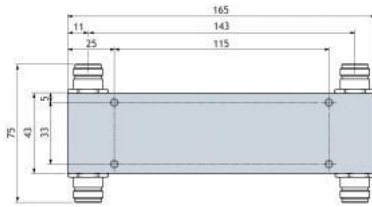
SPECIFICATIONS

ELECTRICAL	
MODEL	RPD 145-470/800-1000-10-N
FREQUENCY RANGE	2 m and 70 cm: 145 - 470 MHz GSM: 800 - 1000 MHz GPS: 1575 MHz
COUPLING	8 - 14 dB
MAX. INPUT POWER	50 W
TOTAL LOSS	
IMPEDANCE	Nom. 50 Ω
INPUT SWR	≤ 2.0
COMPLIANCE	RoHS, IP65
MECHANICAL	
CONNECTORS	N-female
DIMENSIONS (L x W x H)	165 x 75 x 23 mm
WEIGHT	Approx. 375 g
MOUNTING	M4 mm (4 holes)
ENVIRONMENTAL	
TEMP. RANGE	-30° C \rightarrow +60° C

TYPICAL RESPONSE CURVE



MOUNTING DETAILS





PRO-BBPHY 2/70-20-10 dB-N

Broad Band Unsymmetrical Power Divider 1:10

- Used where unsymmetrical splitting of the signal is required.
- Two antennas connected to the same transmitter or receiver where 10% of the signal either comes from or is transmitted to one of the antennas.

DESCRIPTION

- Broad band power splitter for radio systems. Max. 30 W.
- 30 W load built-in.

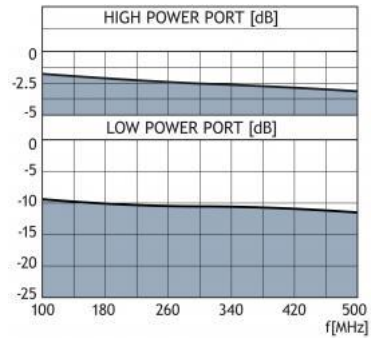
ORDERING DESIGNATION

TYPE NO.	PRODUCT NO.
PRO-BBPHY 2/70-20-10 dB-N	210000281

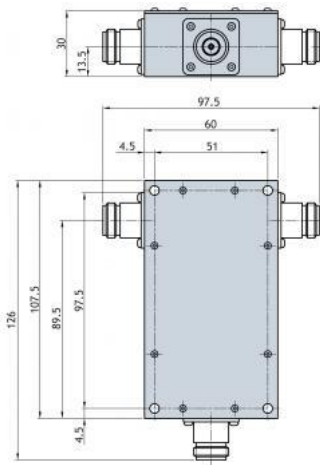
SPECIFICATION

ELECTRICAL	
MODEL	PRO-BBPHY 2/70-20-10 dB-N
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	146 - 470 MHz
MAX. INPUT POWER	30 W when used as a power splitter
INSERTION LOSS	High power port: < 3.2 dB typically 2.4 dB Low power port: -10 dB±1 dB (typically -10 dB±0.6 dB)
ISOLATION Low to high power port	> 14 dB (typically > 17 dB)
IMPEDANCE	Nom. 50 Ω
LOAD	30 W load built-in
SWR High power & input port	< 1.5 (typically ≤ 1.3 dB) all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	126 (incl. conn.) x 97.5 (incl. conn.) x 30.3 mm
WEIGHT	Approx. 400 g

TYPICAL RESPONSE CURVE



MOUNTING DETAILS





PRO-BBMPHY-74-175-3 dB-100W

Broad Band Power Divider / Combiner

- Two antennas connected to the same transmitter or receiver.
- Broad band power splitter for radio systems.

DESCRIPTION

- Combining of two transmitters on the same antenna.
- Note: The power splitter has a built-in heat sink.
Max. 40 W per TX.
- 100 W load built-in.

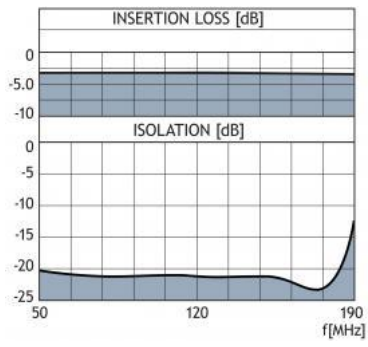
ORDERING DESIGNATIONS

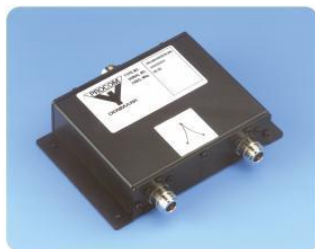
TYPE	PRODUCT NO.
PRO-BBMPHY-74-175-3 dB-100W	210000286

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-BBMPHY-74-175-3 dB-100W
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	74 - 175 MHz
MAX. INPUT POWER	100 W when used as a power splitter - 40 W per channel when used as a hybrid combiner. Note: Gets hot when used as a hybrid combiner. (Up to approx. 80° C)
INSERTION LOSS	< 3.6 dB
ISOLATION TX ₁ , TX ₂	> 20 dB
PHASE TX ₁ , TX ₂	0°
IMPEDANCE	Nom. 50 Ω
LOAD	100 W load built-in
SWR	< 1.5 with all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	196 (incl. conn.) x 128 x 70 mm
WEIGHT	Approx. 1.3 kg

TYPICAL RESPONSE CURVE





PRO-BBMPHY-450-2-N

Broad Band Power Divider / Combiner

- Two antennas connected to the same transmitter or receiver.
- Broad band power splitter for radio systems.

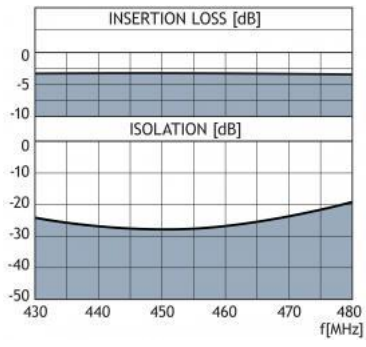
DESCRIPTION

- Combining two transmitters on the same antenna.
Note: The power splitter has to be mounted on an extra heat sink when used as a combiner. Max. 15 W per TX.
- Combining two signal generators.
- 30 W load built-in.

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-BBMPHY-450-2-N
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	430 - 470 MHz (other frequencies on request)
MAX. INPUT POWER	30 W when used as a power splitter - 15 W per channel when used as a hybrid combiner. Note: Extra cooling necessary when used as a hybrid combiner
BANDWIDTH	30 MHz min. Can be extended.
INSERTION LOSS	< 3.6 dB, typically < 3.4 dB
ISOLATION TX ₁ , TX ₂	> 20 dB, typically > 23 dB
PHASE TX ₁ , TX ₂	0°
IMPEDANCE	Nom. 50 Ω
LOAD	30 W load built-in
SWR	< 1.5 (typically < 1.35)
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	130 (incl. conn.) x 152 x 35 mm
WEIGHT	Approx. 400 g

TYPICAL RESPONSE CURVE





PRO-BBMPHY-200-2-N

Broad Band Power Divider / Combiner

- Two antennas connected to the same transmitter or receiver.
- Broad band power divider for radio systems.

DESCRIPTION

- Combining two transmitters on the same antenna.
Note: The power divider has to be mounted on an extra heat sink when used as a combiner. Max. 10 W per TX.
- Combining two signal generators.
- 20 W load built-in.

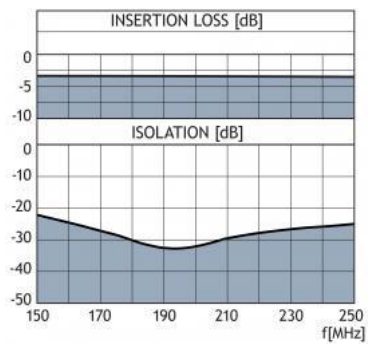
ORDERING DESIGNATION

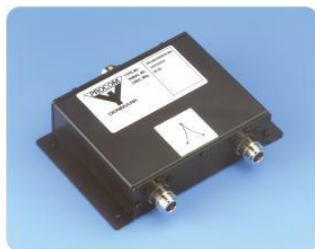
TYPE	PRODUCT NO.
PRO-BBMPHY-200-2-N	210001111

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-BBMPHY-200-2-N
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	175 - 225 MHz
MAX. INPUT POWER	20 W when used as a power divider. 10 W per channel when used as a hybrid combiner. Note: Extra cooling necessary when used as a hybrid combiner
INSERTION LOSS	< 0.6 dB, typically < 0.5 dB
ISOLATION TX ₁ , TX ₂	> 24 dB, typically > 26 dB
PHASE TX ₁ , TX ₂	0°
IMPEDANCE	Nom. 50 Ω
LOAD	30 W load built-in
SWR	< 1.6 all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	130 (incl. conn.) x 152 x 35 mm

TYPICAL RESPONSE CURVE





PRO-BBMPHY-150-2-N

Broad Band Power Divider / Combiner

- Two antennas connected to the same transmitter or receiver.
- Broad band power divider for radio systems.

DESCRIPTION

- Combining two transmitters on the same antenna.
- Note: The power divider has to be mounted on an extra heat sink when used as a combiner. Max. 15 W per TX.
- Combining two signal generators.
- 30 W load built-in.

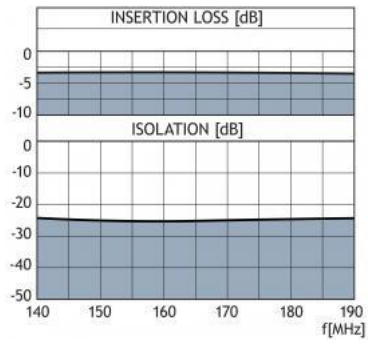
ORDER DESIGNATIONS

TYPE	PRODUCT NO.
PRO-BBMPHY-150-2-N	210000287

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-BBMPHY-150-2-N
TYPE	Cascaded Wilkinson-hybrid
FREQUENCY	144 - 175 MHz
MAX. INPUT POWER	30 W when used as a power divider. 15 W per channel when used as a hybrid combiner. Note: Extra cooling necessary when used as a hybrid combiner
INSERTION LOSS	< 3.6 dB, typically < 3.4 dB
ISOLATION TX ₁ , TX ₂	> 24 dB, typically > 26 dB
PHASE TX ₁ , TX ₂	0°
IMPEDANCE	Nom. 50 Ω
LOAD	30 W load built-in
SWR	< 1.6 all other ports terminated with 50 Ω
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	N-female (other types available)
DIMENSIONS (L x W x H)	130 (incl. conn.) x 152 x 35 mm
WEIGHT	Approx. 400 g

TYPICAL RESPONSE CURVE





PS 900/1800-7/16

2-Channel TX Power Splitter

- High power 2-channel power splitter/combiner.
- The splitter covers the frequency range from 800 - 1900 MHz.

DESCRIPTION

- Very little ripple in loss and isolation over the entire frequency range.

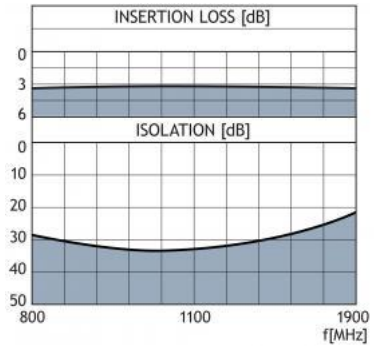
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PS 900/1800-7/16	200001884

SPECIFICATIONS

ELECTRICAL	
MODEL	PS 900/1800-7/16
FREQUENCY RANGE	800-1900 MHz
MAX. INPUT POWER	100 W
INSERTION LOSS (over 3 dB)	< 0.6 dB
ISOLATION OUTPUT TO OUTPUT	> 20 dB
IMPEDANCE	50 Ω
SWR	< 1.3
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	7/16 DIN
DIMENSIONS (L x W x H)	170 x 120 x 80 mm
WEIGHT	1300 g

TYPICAL RESPONSE CURVE





PRO-TAP 150-2700-...

Multiband PowerTapper 150-2700 MHz

- 500 W power tapper with 4.8 to 30 dB coupling covering the 150 - 2700 MHz.
- Taps off a portion of the signal from the main line.

DESCRIPTION

- Excellent high-power performance.
- Very low insertion loss over the entire frequency range.

Power tappers are frequently used in distributed antenna systems in buildings or tunnels. Tappers operate similarly to directional couplers, but without the directivity (no isolation between output port and coupled port) and have relatively broad bandwidths.

ORDERING DESIGNATIONS

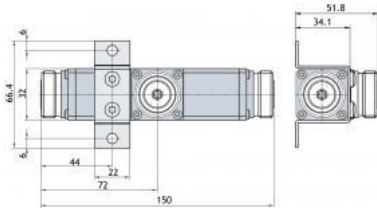
TYPE	COUPLING	PRODUCT NO.
PRO-TAP 150-2700-4.8 dB-N(f)	4.8 dB	200002374
PRO-TAP 150-2700-6 dB-N(f)	6 dB	200002316
PRO-TAP 150-2700-8 dB-N(f)	8 dB	200002448
PRO-TAP 150-2700-10 dB-N(f)	10 dB	200002317
PRO-TAP 150-2700-15 dB-N(f)	15 dB	200002450
PRO-TAP 150-2700-20 dB-N(f)	20 dB	200002318
PRO-TAP 150-2700-30 dB-N(f)	30 dB	200002456
PRO-TAP 150-2700-4.8 dB-7/16(f)	4.8 dB	200002447
PRO-TAP 150-2700-6 dB-7/16(f)	6 dB	200002319
PRO-TAP 150-2700-8 dB-7/16(f)	8 dB	200002449
PRO-TAP 150-2700-10 dB-7/16(f)	10 dB	200002320
PRO-TAP 150-2700-15 dB-7/16(f)	15 dB	200002397
PRO-TAP 150-2700-20 dB-7/16(f)	20 dB	200002321
PRO-TAP 150-2700-30 dB-7/16(f)	30 dB	200002457
ACCESSORIES		
TB-39		200002565

SPECIFICATIONS

ELECTRICAL							
MODEL	PRO-TAP 150-2700-... (dB)						

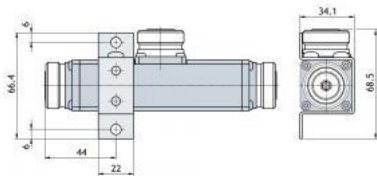
	4.8	6	8	10	15	20	30
FREQUENCY	150 - 1550 MHz & 1650 - 2700 MHz						
COUPLING (dB)	4.8	6	8	10	15	20	30
COUPLING FLATNESS (dB)							
150 - 380 MHz	-0/+2	-0/+2.5	-0.5/+2	-0.5/+2	-0.5/+1.5	-1/+0.5	-3/+1
380 - 2700 MHz	±1	±1	±1	±1	±1	±1	-3/+1
PERCENTAGE OF SIGNAL AT THE COUPLED PORT	33%	25%	16%	10%	3%	1%	0.1%
PERCENTAGE OF SIGNAL AT THE MAIN LINE PORT	67%	75%	84%	90%	97%	99%	99.9%
THROUGH LOSS	<2.3	<1.9	<1.2	<0.7	<0.3	<0.2	<0.2
INPUT SWR	≤1.6	≤1.6	≤1.4	≤1.3	≤1.2	≤1.25	≤1.2
MAX. INPUT POWER	500 W						
IMPEDANCE	Nom. 50 Ω						
PIM 2X43 dBm	< -150 dBc						
COMPLIANCE	N(f)			RoHS, IP65			
	7/16(f)			RoHS, IP68			
MECHANICAL							
TEMP. RANGE	-30° C → +60° C						
CONNECTORS	N-female or 7/16-female						
DIMENSIONS (L x W x H)	145 x 33 x 51 mm / 5.71 x 1.30 x 2.01 in.						
WEIGHT	Approx. 550 g / 1.21 lb.						
MOUNTING	ø6.5 mm (two holes)						

MOUNTING DETAILS STANDARD BRACKET



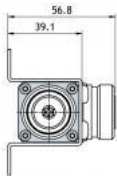
MOUNTING DETAILS STANDARD BRACKET

SIDE MOUNTING



TB-39 BRACKET

EXTRA HIGH





PRO-RPS-8-N

8-Channel passive RX Power Splitter

- Passive wide-band receiver power splitter.
- Wide frequency range 50 MHz to 1000 MHz.
- High isolation between outputs.

DESCRIPTION

- To be used where RF-signals are to be divided or combined:
 - more receivers connected to the same antenna
 - more antenna signals on the same coaxial cable.
- N-female on all ports. (Other connector types on request).
- DC-ground on all ports.

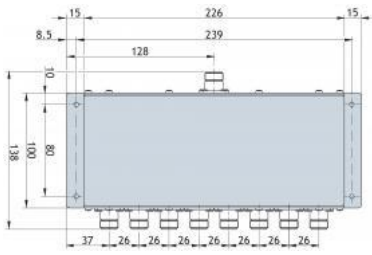
ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-RPS-8-N	210000767

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-RPS-8-N
FREQUENCY RANGE	50 - 1000 MHz
INSERTION LOSS [S21]	10 dB \pm 0.5 dB @ 50 MHz 12 dB \pm 0.5 dB @ 960 MHz
ISOLATION OUTPUT TO OUTPUT	Min. 20 dB
INPUT SWR	Max. 2.0 typ. < 1.5
OUTPUT SWR	Max. 1.5 typ. < 1.3
POWER HANDLING	Max. 0.5 W each port
MECHANICAL	
TEMP. RANGE	-30° C \rightarrow +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 255 (incl. flanges) x 35 mm
WEIGHT	550 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVES





PRO-RPS-8-GPS-N

8-Channel RX Power Splitter

- Passive receiver power splitter.
- Large frequency range. 1500 MHz to 1650 MHz.
- High isolation between outputs. > 20 dB.

DESCRIPTION

- To be used where RF-signals, special GPS-signals shall be divided or combined:
 - more receivers connected to the same coaxial cable
 - more GPS-antennas on the same coaxial cable
 - spectrum analyzer and GPS-receiver on the same coaxial cable.
- N-female on all ports. (Other connector types on request).
- DC-pass on all ports. (Other possibilities on request).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-RPS-8-GPS-N	210000774

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-RPS-8-GPS-N
FREQUENCY RANGE	1500 - 1650 MHz
INSERTION LOSS [S12]	9.5 dB ± 0.5 dB
ISOLATION OUTPUT TO OUTPUT	Min. 20 dB typ. 23 dB
INPUT SWR	Max. 1.5 typ. < 1.3
OUTPUT SWR	Max. 1.5 typ. < 1.3
POWER HANDLING	Max. 0.5 W each port
DC-PASS	Yes - all ports
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 255 (incl. flanges) x 35 mm
WEIGHT	550 g

INSERTION LOSS & ISOLATION





PRO-RPS-4-N

4-Channel RX Power Splitter

- Low power, compact 4-channel power splitter/combiner.
- The splitter covers the frequency range from 50-1000 MHz.

DESCRIPTION

- Almost no ripple in loss and isolation over the entire frequency range.

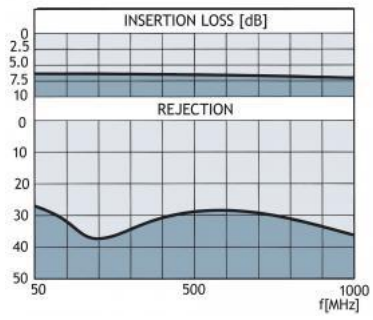
ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-RPS-4-N	210000593

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	50-1000 MHz
MAX INPUT POWER	2 W
INSERTION LOSS (above 6 dB)	< 1.5 dB
ISOLATION OUTPUT TO OUTPUT	> 20 dB
IMPEDANCE	Nom. 50 Ω
SWR	< 1.3
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	89 x 39 x 29 mm
WEIGHT	Approx. 200 g

INSERTION LOSS & ISOLATION





PRO-RPS-4-GPS-N

4-channel RX Power Splitter

- Passive receiver power splitter.
- Large frequency range. 1500 MHz to 1650 MHz.
- High isolation between outputs. > 20 dB.

DESCRIPTION

- To be used where RF-signals, special GPS-signals shall be divided or combined:
 - more receivers connected to the same coaxial cable
 - more GPS-antennas on the same coaxial cable
 - spectrum analyzer and GPS-receiver on the same coaxial cable.
- N-female on all ports. (Other connector types on request).
- DC-pass on all ports. (Other possibilities on request).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-RPS-4-GPS-N	210000664

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	1500-1650 MHz
INSERTION LOSS [S12]	6.5 dB ± 0.5 dB
ISOLATION OUTPUT TO OUTPUT	Min. 20 dB typ. ≥ 25 dB
INPUT SWR	Max. 1.5 typ. < 1.3
OUTPUT SWR	Max. 1.5 typ. < 1.3
POWER HANDLING	Max. 0.5 W each port
DC-PASS	Yes - all ports
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	280 g

INSERTION LOSS & ISOLATION





PRO-RPS-2-N

2-Channel RX Power Splitter

- Low power, compact 2-channel power splitter/combiner.
- The splitter covers the frequency range from 50 - 1000 MHz.

DESCRIPTION

- Almost no ripple in loss and isolation over the entire frequency range.

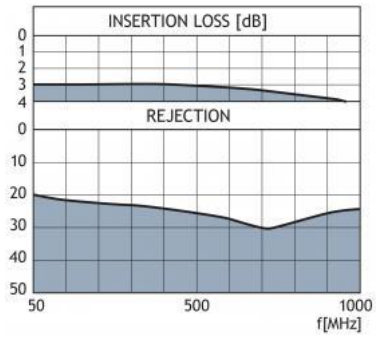
ORDERING DESIGNATIONS

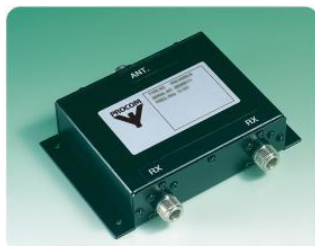
TYPE NO.	PRODUCT NO.
PRO-RPS-2-N	210000599

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	50-1000 MHz
MAX INPUT POWER	2 W
INSERTION LOSS (above 3 dB)	< 1.2 dB
ISOLATION OUTPUT TO OUTPUT	> 20 dB
IMPEDANCE	Nom. 50 Ω
SWR	< 1.3
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	89 x 39 x 29 mm
WEIGHT	Approx. 150 g

INSERTION LOSS & ISOLATION





PRO-RPS-2-GPS-N

2-Channel RX Power Splitter

- Passive receiver power splitter.
- Large frequency range: 1500 MHz to 1650 MHz.
- High isolation between outputs: > 20 dB.

DESCRIPTION

- To be used where RF-signals, especially GPS-signals, are to be divided or combined:
 - 1.more receivers connected to the same coaxial cable
 - 2.more GPS-antennas on the same coaxial cable
 - 3.spectrum analyzer and GPS-receiver on the same coaxial cable.
- N-female on all ports. (Other connector types on request).
- Several DC-pass options available (see ordering designations).

ORDERING DESIGNATIONS

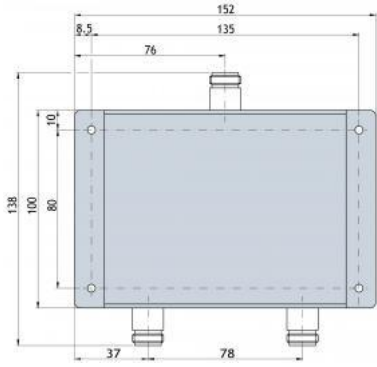
TYPE	DC PASS	PRODUCT NO.
PRO-RPS-2-GPS-N	DC pass between all ports	210000765
PRO-RPS-2-GPS-N-0DC	No DC pass	210002074
PRO-RPS-2-GPS-N-1DC	DC pass between RX port 1 and ANT port	210001852
PRO-RPS-2-GPS-N-2DC	DC pass from RX port 1 to ANT port and from RX port 2 to ANT port, but NOT from RX port 1 to RX port 2	210002143

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-RPS-2-GPS-N
FREQUENCY RANGE	1500 - 1650 MHz
INSERTION LOSS [S12]	3.5 dB ± 0.5 dB
ISOLATION OUTPUT TO OUTPUT	Min. 20 dB typ. ≥ 25 dB
INPUT SWR	Max. 1.5 typ. < 1.3
OUTPUT SWR	Max. 1.5 typ. < 1.3
POWER HANDLING	Max. 0.5 W each port
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	280 g

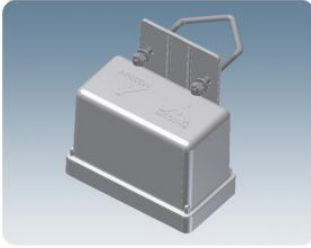
MOUNTING	∅4 mm (4 holes)
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MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-QLNA 380-520

High-Performance Quadrature LowNoise Amplifier for 380-520 mHz

- Mast mounted or wall mounted LNA suitable for:
 - Mast head amplifier to compensate for high cable loss.
 - Preamplifier in antenna signal distribution network.
- Ensures low system noise figure in receiver systems.

DESCRIPTION

- Built-in low-loss input preselector prevents amplifier overload from e.g. nearby transmitters in adjacent frequency bands:
 - Rejects the entire HF/VHF range 0 to 240 MHz > 30 dB.
 - Rejects LTE, GSM and UMTS > 30 dB.
- LNA design with two identical amplifier stages coupled in quadrature ensures high reliability. If a fault occurs in one amplifier stage, the LNA will continue to operate with only minor performance deterioration.
- Very high OIP3.
- Low input and output SWR ensure excellent matching to other units.
- Low weight.
- Wide temperature range.
- Wide supply voltage range.
- Low power consumption.
- DC supply from phantom voltage on the output cable, e.g. by means of junction box PRO-JB1-1G.
- UV-resistant ABS box with water drip.
- N(f) connectors on input and output.

MAMO



WAMO

ORDERING DESIGNATIONS

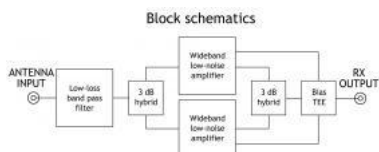
TYPE	PRODUCT NO.
PRO-QLNA 380-520-MAMO-N(f)	200002473
PRO-QLNA 380-520-WAMO-N(f)	200002557

ACCESSORIES	
PRO-JB1-1G	200001677

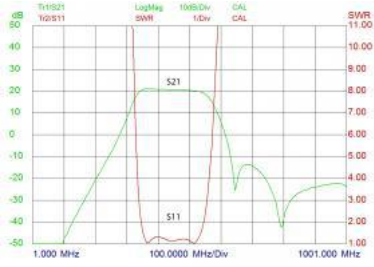
SPECIFICATIONS

LNA TYPE	Redundant, Quadrature
MODEL	PRO-QLNA 380-520
FREQUENCY RANGE	380 - 520 MHz
GAIN	22 dB \pm 1 dB @ 380 MHz 20 dB \pm 1 dB @ 520 MHz (See typical Gain and SWR curve)
NOISE FIGURE	Max. 1.4 dB (See typical Noise Figure curve)
MAX OUTPUT POWER @ 1 dB COMPRESSION (P1dB)	>+20 dBm (100 mW)
OUTPUT 3RD ORDER INTERCEPT POINT (OIP3)	>+37 dBm
MAX NON-DESTRUCTIVE INPUT POWER	+23 dBm (@ 330 - 550 MHz)
IMPEDANCE	Nom. 50 Ω
SWR (INPUT AND OUTPUT)	Max. 1.5:1
SUPPLY VOLTAGE	8 - 25 VDC
CURRENT CONSUMPTION	150 mA
MECHANICAL	
TEMP. RANGE	-30° C \rightarrow +60° C
CONNECTORS	INPUT: N-female OUTPUT: N-female
DIMENSIONS (L x W x H)	160 x 113 x 88 mm / 6.30 x 4.45 x 3.46 in. (incl. conn.)
WEIGHT	Approx. 500 g / 1.10 lb.
ENVIRONMENTAL	
IP-GRADE	IP-63, providing that the stipulated installation is observed

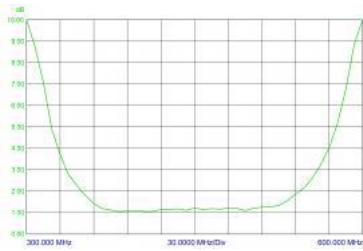
PRO-QLNA 380-520



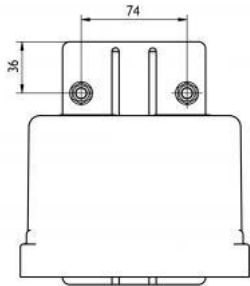
TYPICAL GAIN AND SWR



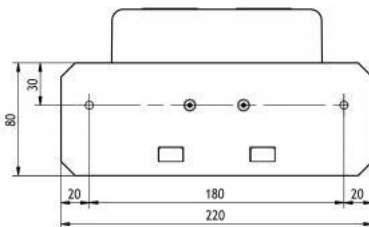
TYPICAL NOISE FIGURE



MOUNTING DETAILS



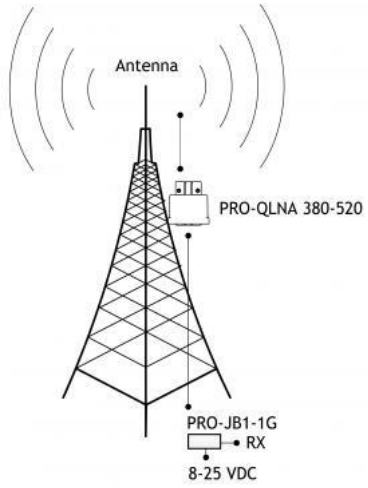
MAMO



WAMO



PRO-JB1-1G





PRO-PDI2-40-1G-10 dB-10W-N

Power Divider 1:10

- 10 W unequal power divider.

DESCRIPTION

- The divider covers the frequency range from 40 - 1000 MHz.
- Very little ripple on divider output over the entire frequency range.

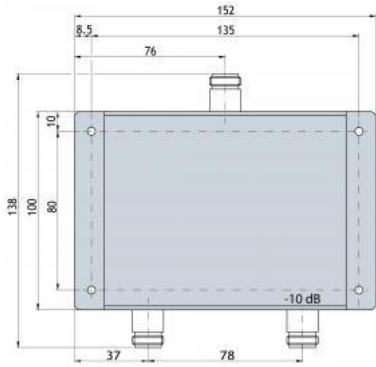
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-10 dB-10W-N	210000446

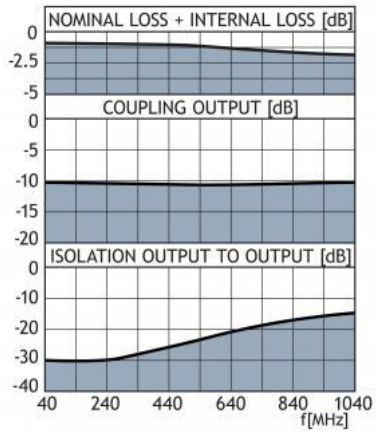
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-10 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	0.45 dB
TOTALLY LOSS INCL. NOMINAL LOSS	1.4 dB @ 40 MHz 2.2 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 12 dB
DIVIDER OUTPUT	-10 dB ± 0.5 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-PDI2-40-1G-7 dB-10W-N

Power Divider 1:5

- 10 W unequal power divider.

DESCRIPTION

- The divider covers the frequency range from 40 - 1000 MHz.
- Very little ripple on divider output over the entire frequency range.

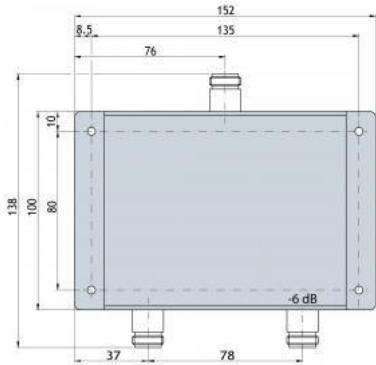
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-7 dB-10W-N	210000443

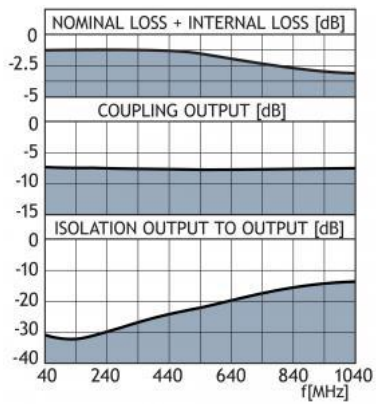
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-7 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	0.8 dB
TOTAL LOSS INCL. NOMINAL LOSS	2.0 dB @ 40 MHz 2.75 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 10 dB
DIVIDER OUTPUT	-7.0 dB ± 0.5 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-PDI2-40-1G-6 dB-2.5W-N

Power Divider 1:4

- 2.5 W unequal power divider.
- The divider covers the frequency range from 40 - 1000 MHz.
- Very little ripple on divider output over the entire frequency range.

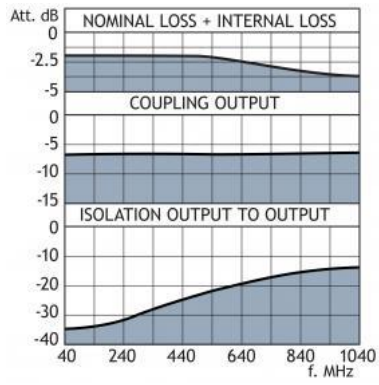
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-6 dB-2.5W-N	210001783

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-6 dB-2.5W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	2.5 W (3 W)
NOMINAL DIVIDER LOSS	1.25 dB
TOTAL LOSS INCL. NOMINAL LOSS	2.3 dB @ 40 MHz 2.75 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 10 dB
DIVIDER OUTPUT	-6.5 dB - 0.5 dB + 1 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.75
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	89 x 56 x 29 mm (incl. connectors)
WEIGHT	Approx. 145 g

TYPICAL RESPONSE CURVE





PRO-PDI2-40-1G-6 dB-10W-N

Power Divider 1:4

- 10 W unequal power divider.

DESCRIPTION

- The divider covers the frequency range from 40 - 1000 MHz.
- Very small ripple on divider output over the entire frequency range.

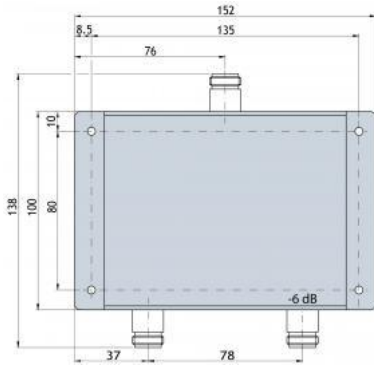
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-6 dB-10W-N	210000440

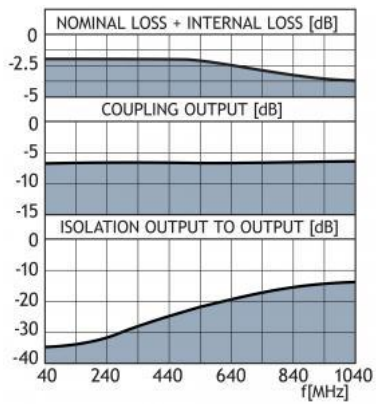
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-6 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	1.25 dB
TOTAL LOSS INCL. NOMINAL LOSS	2.0 dB @ 40 MHz 3.75 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 10 dB
DIVIDER OUTPUT	-6.5 dB ± 0.5 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-PDI2-40-1G-20 dB-10W-N

Power Divider 1:100

- 10 W unequal power divider.

DESCRIPTION

- The divider covers the frequency range from 40 - 1000 MHz.
- Very little ripple on divider output over the entire frequency range.

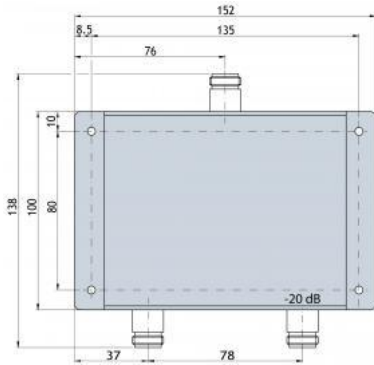
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-20 dB-10W-N	210000445

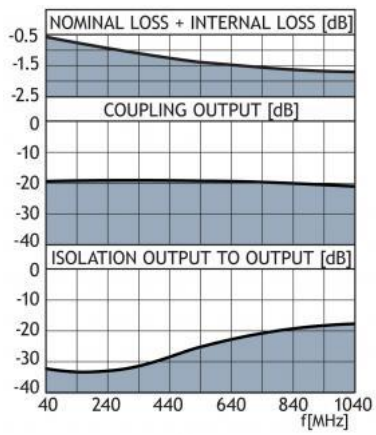
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-20 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	0.04 dB
TOTALLY LOSS INCL.	0.8 dB @ 40 MHz
NOMINAL LOSS	1.7 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 15 dB
DIVIDER OUTPUT	-20 dB ± 1.0 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-PDI2-40-1G-20 dB10W-N

Power Divider 1:100

- 10 W unequal power divider.
- The divider covers the frequency range from 40 - 1000 MHz.

DESCRIPTION

Very little ripple on divider output over the entire frequency range.

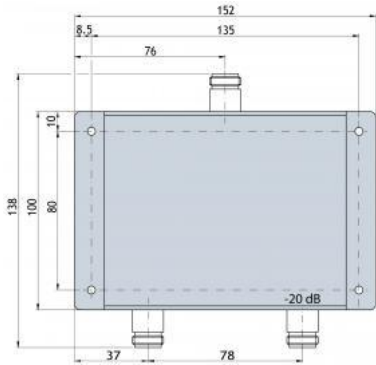
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-20 dB-10W-N	210000445

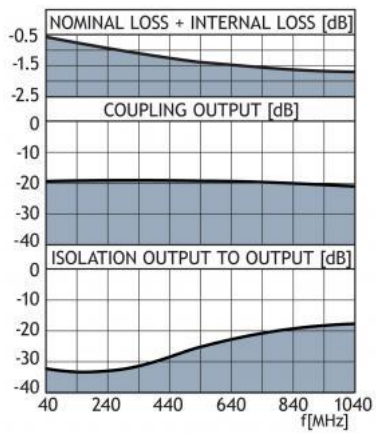
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-20 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	0.04 dB
TOTALLY LOSS INCL.	0.8 dB @ 40 MHz
NOMINAL LOSS	1.7 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 15 dB
DIVIDER OUTPUT	-20 dB \pm 1.0 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C \rightarrow +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-PDI2-40-1G-10 dB-2.5W-N

Power Divider 1:10

- 2.5 W unequal power divider.

DESCRIPTION

- The divider covers the frequency range from 40 - 1000 MHz.
- Very little ripple on divider output over the entire frequency range.

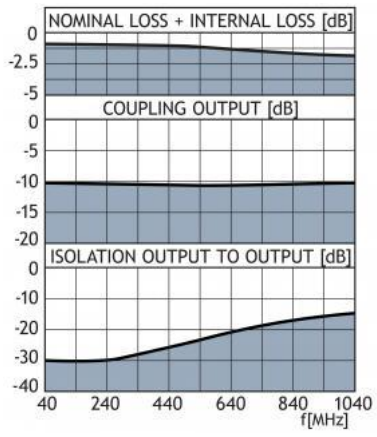
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-10 dB-2.5W-N	210001784

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-10 dB-2.5W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	2.5 W (3 W)
NOMINAL DIVIDER LOSS	0.45 dB
TOTAL LOSS INCL. NOMINAL LOSS	1.4 dB @ 40 MHz 2.2 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 12 dB
DIVIDER OUTPUT	-10 dB \pm 0.5 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C \rightarrow +60°C
CONNECTORS	N-female
DIMENSIONS	89 x 56 x 29 mm (incl. connectors)
WEIGHT	Approx. 145 g

TYPICAL RESPONSE CURVE





PRO-ATT ... dB-25-3

Attenuator 25 W

- This series includes 3 dB, 6 dB, 10 dB, 20 dB and 30 dB attenuators.

DESCRIPTION

- This series of attenuators has very low SWR and attenuation flatness and is especially suitable for use with:
 - Coaxial Transmission Lines
 - Power Monitors
 - Watt Meters
- The attenuators have a finish of black anodization.

ORDERING DESIGNATIONS

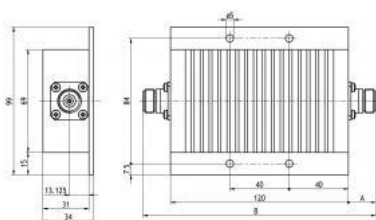
TYPE	PRODUCT NO.
PRO-ATT 3 dB-25-3-N(f)	200001732
PRO-ATT 6 dB-25-3-N(f)	200001750
PRO-ATT 10 dB-25-3-N(f)	200001751
PRO-ATT 20 dB-25-3-N(f)	200001724
PRO-ATT 30 dB-25-3-N(f)	200001752
PRO-ATT 3 dB-25-3-7/16(f)	200002544
PRO-ATT 6 dB-25-3-7/16(f)	200002545
PRO-ATT 10 dB-25-3-7/16(f)	200002541
PRO-ATT 20 dB-25-3-7/16(f)	200002542
PRO-ATT 30 dB-25-3-7/16(f)	200002543

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-ATT ... dB-25-3
FREQUENCY RANGE	DC - 3 GHz
MAX. INPUT POWER	25 W
ATTENUATION	See table below
POWER RATING REMARKS	Unrestricted airflow necessary for operating at maximum power
IMPEDANCE	Nom. 50 Ω
SWR	<1.25
MECHANICAL	
TEMP. RANGE	-35°C → +70°C

CONNECTORS		N-female or 7/16 DIN-female	
DIMENSIONS (L x W x H)		120 x 100 x 34 mm / 4.72 x 3.94 x 1.35 in.	
WEIGHT		Approx. 650 g / 1.43 lb.	
MOUNTING		ø5 mm (4 holes)	
MODEL	ATTENUATION	ATT. DEVIATION	
		DC - 2.0 GHz	2.0 - 3.0 GHz
PRO-ATT 3 dB-25-3	3 dB	+/-0.5 dB	+/-1.0 dB
PRO-ATT 6 dB-25-3	6 dB	+/-0.5 dB	+/-1.0 dB
PRO-ATT 10 dB-25-3	10 dB	+/-0.75 dB	+/-1.5 dB
PRO-ATT 20 dB-25-3	20 dB	+/-0.75 dB	+/-1.5 dB
PRO-ATT 30 dB-25-3	30 dB	+/-0.75 dB	+/-1.5 dB

MOUNTING DETAILS



DIMENSIONS

	A	B
PRO-ATT ... dB-25-3-N(f)	18.5 mm (0.73 in.)	157 mm (6.18 in.)
PRO-ATT ... dB-25-3-7/16(f)	21.5 mm (0.85 in.)	163 mm (6.42 in.)



PRO-ATT ... dB-2-3-N

Attenuator 2 W

- This 2 W series includes 3 dB, 6 dB, 10 dB, 20 dB and 30 dB attenuators.

DESCRIPTION

- This series of attenuators has very low SWR and attenuation flatness and is especially suitable for use with:
 - Coaxial Transmission Lines
 - Power Monitors
 - Watt Meters

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-ATT 3 dB-2-3-N	200002212
PRO-ATT 6 dB-2-3-N	200002213
PRO-ATT 10 dB-2-3-N	200002087
PRO-ATT 20 dB-2-3-N	200002214
PRO-ATT 30 dB-2-3-N	200002215

SPECIFICATIONS

ELECTRICAL			
FREQUENCY RANGE		DC - 3 GHz	
MAX. INPUT POWER		2 W	
ATTENUATION		See table below	
IMPEDANCE		Nom. 50 Ω	
SWR		< 1.25	
MECHANICAL			
TEMP. RANGE		-35°C → +70°C	
CONNECTORS		N-male to N-female	
DIMENSIONS		53 x 21 mm / 2.09 x 0.83 in.	
WEIGHT		Approx. 71 g / 0.16 lb.	
MODEL	ATTENUATION	ATT. DEVIATION	
		DC - 2.0 GHz	2.0 - 3.0 GHz
PRO-ATT 3 dB-2-3-N	3 dB	+/-0.2 dB	+/-0.3 dB
PRO-ATT 6 dB-2-3-N	6 dB	+/-0.2 dB	+/-0.3 dB



PRO-ATT 10 dB-2-3-N	10 dB	+/-0.2 dB	+/-0.3 dB
PRO-ATT 20 dB-2-3-N	20 dB	+/-0.2 dB	+/-0.3 dB
PRO-ATT 30 dB-2-3-N	30 dB	+/-0.5 dB	+/-1.5 dB



PRO-PDI2-0.8-2.7G-20W-N

Power Divider 20 W

- 20 W Power Divider with broadband characteristics covering the cellular service bands.

DESCRIPTION

- 20 W equal power divider.
- Very low SWR and excellent isolation over the entire frequency range.

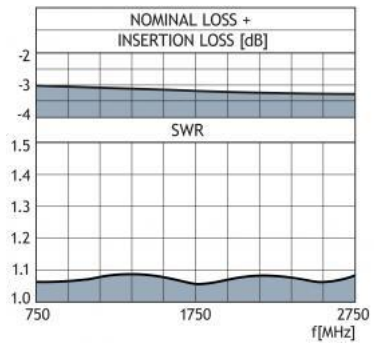
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-0.8-2.7G-20W-N	200001704

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-0.8-2.7G-20W-N
FREQUENCY RANGE	0.8 - 2.7 GHz
ISOLATION	> 20 dB
SWR	< 1.2
MAX. INPUT POWER	20 W
NOMINAL DIVIDER LOSS	3 dB
TOTAL LOSS INCL. NOMINAL DIVIDER LOSS	< 3.5 dB
DIVIDER OUTPUT	Equal
IMPEDANCE	Nom. 50 Ω
COMPLIANCE	RoHS, IP66
MECHANICAL	
CONNECTORS	N-female
DIMENSIONS (L x W x H)	129 x 100 x 33 mm
WEIGHT	Approx. 395 g
ENVIRONMENTAL	
TEMP. RANGE	-35° C → 50° C

TYPICAL RESPONSE CURVE





PRO-MPS... 380-2700

2- & 3-Way Medium Power Splitter 100W

- 100 W 2- & 3-way medium power splitter covering the 380 - 2700 MHz band.
- Excellent power performance.

DESCRIPTION

- Very low SWR and insertion loss over the entire frequency range.

ORDERING DESIGNATION

TYPE	DESCRIPTION	PRODUCT NO.
PRO-MPS2 380-2700-N(f)	2-Way	200002458
PRO-MPS3 380-2700-N(f)	3-Way	200002485

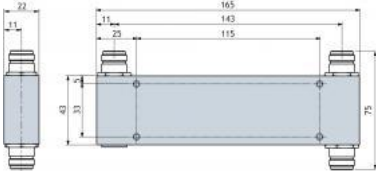
SPECIFICATIONS

ELECTRICAL		
MODEL	PRO-MPS2 380-2700	PRO-MPS3 380-2700
FREQUENCY RANGE	380 - 2700 MHz	380 - 2700 MHz
AMPLITUDE BALANCE	± 0.3 dB	± 0.5 dB
MAX. INPUT POWER	100 W	100 W
SPLIT	1:2	1:3
SPLIT LOSS	3 dB	4.8 dB
THROUGH LOSS	380 MHz < 3.4 dB 1000 MHz < 3.8 dB 2700 MHz < 4 dB	380 MHz < 5.1 dB 1500 MHz < 5.6 dB 2700 MHz < 5.8 dB
IMPEDANCE	Nom. 50 Ω	Nom. 50 Ω
INPUT SWR	≤ 1.3	≤ 1.3
COMPLIANCE	RoHS, IP64	RoHS, IP64
MECHANICAL		
TEMP. RANGE	-30° C → +60° C	-30° C → +60° C
CONNECTORS	N-female	N-female
DIMENSIONS (L x W x H)	165 x 75 x 23 mm	185 x 75 x 23 mm
WEIGHT	Approx. 345 g	Approx. 360 g
MOUNTING	M4 mm (4 holes)	M4 mm (4 holes)

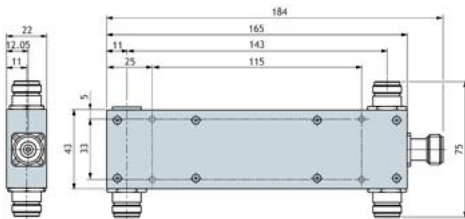
3-WAY



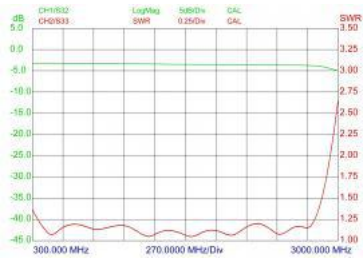
MOUNTING DETAILS 2-WAY



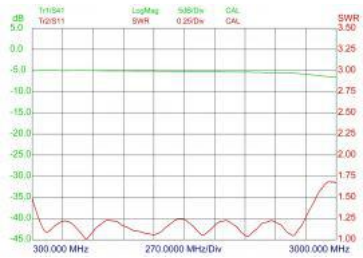
MOUNTING DETAILS 3-WAY



TYPICAL RESPONSE CURVE 2-WAY



TYPICAL RESPONSE CURVE 3-WAY





PRO-MPHY450-2-... dB-N-...

2-Channel Hybrid Ring Power Combiner/Divider for the 450 MHz band

- Combines two transmitters or receivers on the same antenna.
- Better utilization of good antenna position.
- The only combining option with very small TX-TX frequency spacing.

DESCRIPTION

- 30 W load built-in.
- Two antennas on the same transmitter or receiver.
- Symmetrical 1:1 dividing ratio (-3 dB).
- Can be delivered with asymmetrical dividing ratio, e.g. -6 dB, -10 dB or -15 dB.
- Centre frequency to be arbitrary specified by the customer within 380 - 475 MHz.

ORDERING DESIGNATIONS

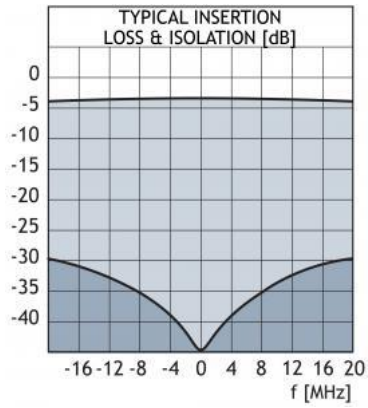
TYPE	PRODUCT NO.
PRO-MPHY450-2-3 dB-N	210000606
PRO-MPHY450-2-6 dB-N	210000728
PRO-MPHY450-2-10 dB-N	210000746
PRO-MPHY450-2-15 dB-N	210001145

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-MPHY450-2-... dB-N-...
FILTER TYPE	Hybrid Ring Junction
CENTRE FREQUENCY	To be stated within 380 and 475 MHz
MAX. INPUT POWER	30 W per channel when used as a power combiner. 60 W when used as a power divider. Note: When used as a power combiner, extra cooling is necessary. At 2 x 30 W the unit requires a heatsink with $R_{th} \leq 3^\circ \text{ C/W}$.
INSERTION LOSS, SYMMETRICAL DIVIDING RATIO	< 3.4 dB @ ± 5 MHz BW < 3.7 dB @ ± 10 MHz BW
ISOLATION	> 35 dB @ ± 5 MHz BW > 30 dB @ ± 10 MHz BW
IMPEDANCE	Nom. 50 Ω
SWR	< 1.5 within ± 10 MHz from centre frequency, all other ports terminated with 50 Ω .
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female (other types as option)

DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 350 g

TYPICAL RESPONSE CURVE





PRO-MPHY150-2-... dB

2-Channel Hybrid Ring Power Combiner/Divider for the 150 MHz band

- Combines two transmitters or receivers on the same antenna.
- Better utilization of good antenna position.
- The only combining option with very small TX-TX frequency spacing.

DESCRIPTION

- 30 W load built-in.
- Two antennas on the same transmitter or receiver.
- Symmetrical 1:1 dividing ratio (-3 dB).
- Can be delivered with asymmetrical dividing ratio, e.g. -6 dB, -10 dB, -20 dB or -30 dB.
- Centre frequency to be specified by the customer within 150 - 175 MHz.

ORDERING DESIGNATIONS

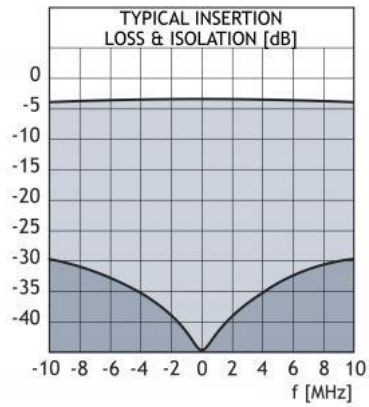
TYPE	PRODUCT NO.
PRO-MPHY150-2-3 dB-N(f)	210000514
PRO-MPHY150-2-6 dB-N(f)	210001431
PRO-MPHY150-2-10 dB-N(f)	210000624
PRO-MPHY150-2-20 dB-N(f)	210000752
PRO-MPHY150-2-30 dB-N(f)	210000725

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-MPHY150-2-.. dB
FILTER TYPE	Hybrid Ring Junction
CENTRE FREQUENCY	To be stated within 150 and 175 MHz
MAX. INPUT POWER	30 W per channel when used as a power combiner. 60 W when used as a power divider. Note: When used as a power combiner, extra cooling is necessary. At 2 x 30 W the unit requires a heatsink with $R_{th} \leq 3^\circ \text{ C/W}$.
INSERTION LOSS	< 3.3 dB @ ± 12 MHz BW
ISOLATION	> 35 dB @ ± 6 MHz BW > 30 dB @ ± 12 MHz BW
IMPEDANCE	Nom. 50 Ω
SWR	< 1.3 within ± 10 MHz from centre frequency, all other ports terminated with 50 Ω .
MECHANICAL	
TEMP. RANGE	-30° C → +60° C

CONNECTORS	N-female (other types as option)
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 450 g

TYPICAL RESPONSE CURVE





PRO-MMU 0.8-2.5G-200W-N

Power Splitter 200 W

- 200 W equal Power Splitter with broad-band characteristic covering the cellular service bands.
- Excellent high power performance.

DESCRIPTION

- Very low SWR and IL over the entire frequency range.
- Compliant with RoHS and IP66.

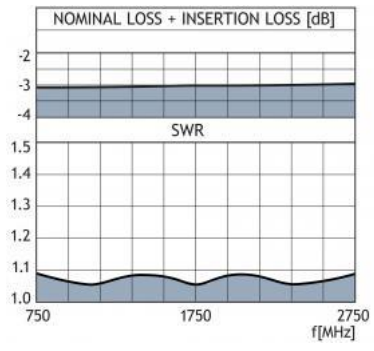
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-MMU 0.8-2.5G-200W-N	200001718

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-MMU 0.8-2.5G-200W-N
FREQUENCY RANGE	0.8 - 2.5 GHz
WAY	2
SWR	< 1.2
MAX. INPUT POWER	200 W
NOMINAL SPLITTER LOSS	3 dB
TOTAL LOSS INCL.NOMINAL SPLITTER LOSS	< 3.5 dB
COMPLIANCE	RoHS, IP66
DIVIDER OUTPUT	Equal
IMPEDANCE	Nom. 50 Ω
MECHANICAL	
TEMP. RANGE	-35° C → +50° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	212 x 61 x 26 mm
WEIGHT	Approx. 401 g

TYPICAL RESPONSE CURVE





AMP 50-1.6G

Miniature Ultra-High Dynamic Low-noise Preamplifier

- Miniature ultra-high dynamic low-noise preamplifier.
- Ultra-high P_{1dB} -compression point.

DESCRIPTION

- Ultra-high 3rd order intercept point.
- To be used where extra preamplification is needed:
 - Receivers with long antenna cabling
 - Measuring instruments
 - Multicoupler systems
 - Scanners.
- Low noise figure.
- 12 V operational voltage (24 V as option).
- Provided with FME-male connector on input and output.
- Can be DC powered in two ways without any switching:
 - Via the red/black DC cable
 - From phantom voltage on the RF output port.



ORDERING DESIGNATIONS

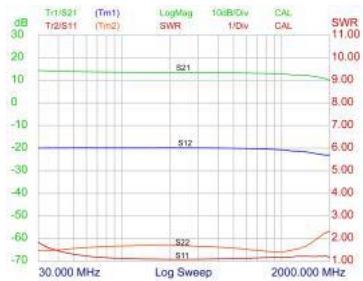
TYPE	PRODUCT NO.
AMP 50-1.6G	200001113

SPECIFICATIONS

ELECTRICAL	
MODEL	AMP 50-1.6G
FREQUENCY RANGE	50 - 1600 MHz
GAIN [S21]	12 dB \pm 2 dB
NOISE FIGURE	\leq 6.0 dB, typ. 4.0 dB @ 400 MHz
P_{1dB}	$>$ 23 dBm
OIP ₃	\geq 40 dBm
INPUT SWR	Max. 1.5
OUTPUT SWR	Max. 2.5

ISOLATION OUTPUT TO INPUT	> 17 dB
MAX. RF INPUT POWER	50 mW / +17 dBm
VOLTAGE	11-14 V @ 12 V; 250 mA (24 V as option)
MECHANICAL	
CONNECTORS	FME-male, 2 pcs. + flexible wire
DIMENSIONS (W x H x D)	50 x 36 x 50 mm (incl. connectors)
WEIGHT	Approx. 95 g
ENVIROMENTAL	
TEMP. RANGE	- 30° C → + 50° C

TYPICAL RESPONSE CURVES





PRO-MARHP4-4-3-2-12V

Miniature 4-Channel Receiver Multicoupler for the 4 m, 3 m and 2 m bands

- For use where four receivers have to share the same antenna.
- High isolation between the four receivers: > 20 dB.

DESCRIPTION

- High-dynamic range amplifier built in to compensate for loss in the multicoupler network.
- Ultra high third-order intercept point: > +37 dBm.
- Low noise figure for the amplifier: < 1.2 dB.
- 12 V operating voltage (24 V as option).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-MARHP4-4-3-2-12V	210000173

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	68-180 MHz
GAIN (INPUT TO ALL OUTPUTS)	2 dB ± 1 dB (Gain adj. 1 dB to 11 dB)
NOISE FIGURE, AMPLIFIER	< 1.2 dB
OIP ₃	> +31 dBm
P _{1dB}	> 10 dBm
ISOLATION OUTPUT TO OUTPUT	> 20 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	Max. 3.5, typically 2.0
OUTPUT SWR	Max. 1.5, typ. 1.3
SUPPLY POWER	12 V @ 60 mA
MECHANICAL	
TEMP. RANGE	-30° C → + 60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 500 g



PRO-MARHP2-4-3-2-12V

Miniature 2-Channel Receiver Multicoupler for the 4 m, 3 m and 2 m bands

- For use where two receivers have to share the same antenna.
- High isolation between the two receivers: > 20 dB.

DESCRIPTION

- High-dynamic range amplifier built in to compensate for loss in the multicoupler network.
- Ultra-high third-order intercept point, > +37 dBm.
- Low noise figure for the amplifier: 1.2 dB.
- 12 V operating voltage (24 V as option).

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-MARHP2-4-3-2-12V	210000182

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-MARHP2-4-3-2-12V
FREQUENCY RANGE	68 - 180 MHz
GAIN (INPUT TO ALL OUTPUTS)	2 dB \pm 1 dB (Gain adj. 1 dB to 11 dB)
NOISE FIGURE, AMPLIFIER	< 1.2 dB
OIP ₃	> 31 dBm
P _{1dB}	> 10 dBm
ISOLATION OUTPUT TO OUTPUT	> 20 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR OUTPUT SWR	Max. 3.5, typ. 2.0 Max. 1.5, typ. 1.3
SUPPLY POWER	12 V @ 60 mA
MECHANICAL	
TEMP. RANGE	-30° C \rightarrow +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 500 g



PRO-MAR4-N

Miniature 4-Channel Software Receiver Multicoupler

- Active wideband receiver multicoupler for the LF, MF, HF and low VHF bands.
- For use where four receivers have to share the same antenna.

DESCRIPTION

- Wide frequency range: Covers 10 kHz - 108 MHz.
- High isolation between the four receiver outputs.
- Amplifier built in to compensate for loss in multicoupler network.
- Adjustable gain.
- High IP2 and IP3.
- Low amplifier noise figure.
- Wide supply voltage range.
- N-, BNC- or TNC-female connectors on all ports.

ORDERING DESIGNATIONS

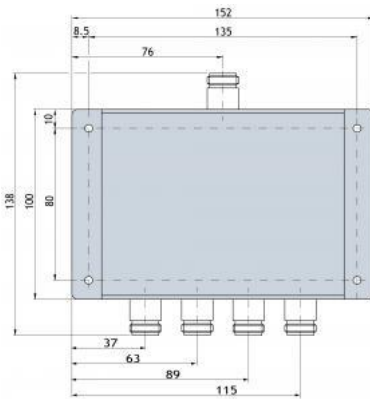
TYPE	PRODUCT NO.
PRO-MAR4-N	210001594
PRO-MAR4-BNC	210000153
PRO-MAR4-TNC	210001593

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-MAR4-N
FREQUENCY RANGE	10 kHz - 108 MHz
GAIN INPUT TO ALL OUTPUTS	Adjustable from < -8 dB to > +2 dB
GAIN FLATNESS	Better than ± 1 dB
NF (AMPLIFIER)	< 5.5 dB @ 10 MHz, < 4.5 dB @ 108 MHz
P _{1dB}	> +6 dBm (@ gain = max.)
OIP ₂	> +29 dBm (@ gain = max.)
OIP ₃	> +17 dBm (@ gain = max.)
ISOLATION BETWEEN OUTPUTS	Min. 17 dB, typ. > 20 dB
ISOLATION, OUTPUT TO INPUT	> 25 dB
INPUT SWR	< 2.0
OUTPUT SWR	< 1.5
SUPPLY VOLTAGE/CURRENT	11 to 25 V 90 mA

MECHANICAL	
CONNECTORS	N-, BNC- or TNC-female
DIMENSIONS (L x W x H)	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 400 g
MOUNTING	ø4 mm (four holes)

MOUNTING DETAILS





PRO-MAR2-N

Ministure 2-Channel Shortwave Receiver Multicoupler

- Active wideband receiver multicoupler for the LF, MF, HF and low VHF bands.
- For use where two receivers have to share the same antenna.

DESCRIPTION

- Wide frequency range: Covers 10 kHz - 108 MHz.
- High isolation between the two receiver outputs.
- Amplifier built in to compensate for loss in multicoupler network.
- Adjustable gain.
- High IP2 and IP3.
- Low amplifier noise figure.
- Wide supply voltage range.
- N-, BNC- or TNC-female connectors on all ports.

ORDERING DESIGNATIONS

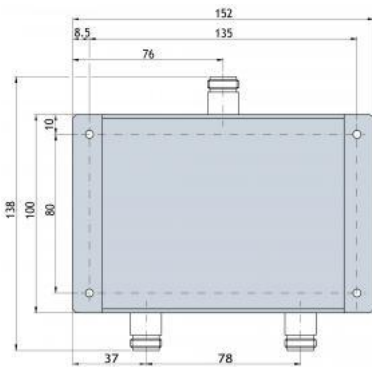
TYPE	PRODUCT NO.
PRO-MAR2-N	210001583
PRO-MAR2-BNC	210001584
PRO-MAR2-TNC	210001585

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-MAR2-N
FREQUENCY RANGE	10 kHz - 108 MHz
GAIN INPUT TO ALL OUTPUTS	Adjustable from < -8 dB to > +2 dB
GAIN FLATNESS	Better than ± 1 dB
NF (AMPLIFIER)	< 5.5 dB @ 10 MHz, < 4.5 dB @ 108 MHz
P_{1dB}	> +6 dBm (@ gain = max.)
OIP ₂	> +29 dBm (@ gain = max.)
OIP ₃	> +17 dBm (@ gain = max.)
ISOLATION BETWEEN OUTPUTS	Min. 17 dB, typ. > 20 dB
ISOLATION, OUTPUT TO INPUT	> 25 dB
INPUT SWR	< 2.0
OUTPUT SWR	< 1.5
SUPPLY VOLTAGE/CURRENT	11 to 25 V 90 mA

MECHANICAL	
CONNECTORS	N-, BNC- or TNC-female
DIMENSIONS (L x W x H)	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 400 g
MOUNTING	ø4 mm (four holes)

MOUNTING DETAILS





PRO-LNA-GPS-12V

Low-noise Preamplifier for 1575 MHz

- Miniature high-dynamic range low-noise preamplifier.

DESCRIPTION

- For use where additional preamplification is required:
 - receivers with long antenna cabling
 - measuring instruments
 - antenna distribution systems
 - scanners
- Low noise figure: < 3 dB incl. input filter.
- 12 V operating voltage (24 V as option).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-LNA-GPS-12V	210000307

SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-LNA-GPS-12V
FREQUENCY RANGE	1575 MHz
GAIN [S21]	15 dB
NOISE FIGURE	< 3 dB (incl. input filter)
3rd ORDER INTERCEPT POINT	> 25 dBm
1 dB COMPRESSION POINT	> 15 dBm
SELECTIVITY	> 20 dB down at ± 100 MHz
IMPEDANCE	Nom. 50 Ω
SWR (INPUT & OUTPUT)	Max. 2.5, typically < 2.0
SUPPLY POWER	12 V @ 40 mA
MECHANICAL	
TEMP. RANGE	-30° C to +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 500 g



PROCOM A/S • Smedeløften 12
DK-3600 Fredrikssund • Denmark



PRO-LNA-900-12V

Low-noise Preamplifier for 880 - 960 MHz

- Miniature high-dynamic range low-noise preamplifier.

DESCRIPTION

- For use where additional preamplification is required:
 - receivers with long antenna cabling
 - measuring instruments
 - antenna distribution systems
 - scanners.
- Low noise figure: < 1.5 dB.
- Band-segmented frequency range. Series covers 10 kHz-1300 MHz.
- 12 V operating voltage (24 V as option).
- N-female connectors on input and outputs (other types available).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-LNA-900-12V	210000107

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	880-960 MHz
GAIN [S21]	+15 dB (Gain adj. 0/-10 dB)
P1dB	+5 dBm (@ 15 dB gain)
NOISE FIGURE	< 1.5 dB @ 915 MHz
3rd ORDER INTERCEPT POINT	> +15 dBm @ 15 dB gain
INPUT SWR	Max. 2.0, typically < 1.5
OUTPUT SWR	Max. 1.5, typically < 1.3
ISOLATION OUTPUT TO INPUT	> 25 dB
VOLTAGE	11-14 V @ 12 V: 85 mA (24 V as option)
MECHANICAL	
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 280 g



PRO-LNA-70-12V

Low-noise Preamplifier for 400 - 475 MHz

- Miniature high-dynamic range low-noise preamplifier.

DESCRIPTION

- For use where additional preamplification is required:
 - Receivers with long antenna cabling
 - Measuring instruments
 - Antenna distribution systems
 - Scanners
- Low noise figure: ≤ 2.5 dB.
- Bandwidth 30 MHz within the frequency range 400-475 MHz
 F_{LOW} to F_{HIGH} to be stated after the ordering designation when ordering.
- 12 V operating voltage (24 V as option).
- N-female connectors on input and output.
- Also available with SMA(f), TNC(f) or BNC(f).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-LNA-70-12V-N(f)	210000145
PRO-LNA-70-12V-SMA(f)	210002213
PRO-LNA-70-12V-TNC(f)	210002214
PRO-LNA-70-12V-BNC(f)	210002215

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	400-475 MHz
BANDWIDTH	30 MHz F_{LOW} to F_{HIGH} to be stated within 400-470 MHz
GAIN [S21]	Typ. 18 dB (Gain adj. 0/-10 dB)
ISOLATION (S12)	>30 dB
NOISE FIGURE	< 2.5 dB
MAX. OUTPUT POWER @ 1dB COMPRESSION (P1dB)	$\geq +5$ dBm @ 18 dB gain
OUTPUT 3 RD ORDER INTERCEPT POINT (OIP3)	>+20 dBm @ 18 dB gain
IMPEDANCE	Nom. 50 ohm
INPUT SWR (S11)	Max. 3.5, typ ≤ 2.0
OUTPUT SWR (S22)	Max. 2.5, typ ≤ 1.5



SUPPLY VOLTAGE	11-14 V (24 V as option)
CURRENT CONSUMPTION	50 mA
MECHANICAL	
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm / 5.4 x 5.9 x 1.3 in.
WEIGHT	Approx. 280 g / 0.6 lb

Procom A/S reserve the right to amend specifications without prior notice.



PRO-LNA-2400-12V

Low-noise preamplifier for 2300 2500 MHz

- Miniature high-dynamic range low-noise preamplifier.

DESCRIPTION

- For use where additional preamplification is required:
 - receivers with long antenna cabling
 - measuring instruments
 - antenna distribution systems
 - scanners
- Low noise figure: < 1.2 dB.
- 12 V operating voltage (24 V as option).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-LNA-2400-12V	210000372

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	2300-2500 MHz
GAIN [S21]	15 dB (Gain adj. 0/-10 dB)
NOISE FIGURE	< 1.2 dB
3rd ORDER INTERCEPT POINT	> 12 dBm
1 dB COMPRESSION POINT	> 5 dBm
ISOLATION OUTPUT TO INPUT	> 20 dB
IMPEDANCE	Nom. 50 Ω
SWR (INPUT & OUTPUT)	Max. 2.0, typically < 1.5
SUPPLY POWER	12 V @ 100 mA
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 500 g

Procom A/S reserve the right to amend specifications without prior notice.



PRO-LNA-1800-12V

Low-noise Preamplifier

- Miniature high-dynamic range low-noise preamplifier.

DESCRIPTION

- For use where additional preamplification is required:
 - receivers with long antenna cabling
 - measuring instruments
 - antenna distribution systems
 - scanners
- Low noise figure: < 1.2 dB.
- 12 V operating voltage (24 V as option).

ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-LNA-1800-12V	210000362

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	1700-1900 MHz
GAIN [S21]	15 dB (Gain adj. 0/-10 dB)
NOISE FIGURE	< 1.2 dB
3rd ORDER INTERCEPT POINT	> 15 dBm
1 dB COMPRESSION POINT	> 5 dBm
ISOLATION OUTPUT TO INPUT	> 20 dB
IMPEDANCE	Nom. 50 Ω
SWR (INPUT & OUTPUT)	Max. 2.0, typically < 1.5
SUPPLY POWER	12 V @ 100 mA
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTORS	N-female
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 500 g

Procom A/S reserve the right to amend specifications without prior notice.



PRO-LNA-1200-12V

Low-noise Preamplifier for 1140 - 1300 ;Hz

- Miniature high-dynamic range low-noise preamplifier.

DESCRIPTION

- For use where additional preamplification is required:
 - receivers with long antenna cabling
 - measuring instruments
 - antenna distribution systems
 - scanners
- Low noise figure: < 1 dB.
- Band-segmented frequency range. Series covers 10 kHz-1300 MHz.
- 12 V operating voltage (24 V as option).
- N-female connectors on input and outputs (other types available).

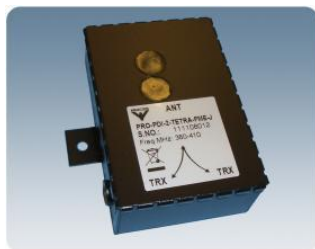
ORDERING DESIGNATIONS

TYPE NO.	PRODUCT NO.
PRO-LNA-1200-12V	210000106

SPECIFICATIONS

ELECTRICAL	
FREQUENCY RANGE	1140-1300 MHz
GAIN [S21]	+15 dB (Gain adj. 0/-10 dB)
P1dB	+5 dBm (@ 15 dB gain)
NOISE FIGURE	< 1 dB @ 1200 MHz
3rd ORDER INTERCEPT POINT	> +15 dBm @ 15 dB gain
INPUT SWR	Max. 2.0, typically < 1.5
OUTPUT SWR	Max. 1.5, typically < 1.3
ISOLATION OUTPUT TO INPUT	> 25 dB
VOLTAGE	11-14 V @ 12 V: 85 mA (24 V as option)
MECHANICAL	
DIMENSIONS (L x W x H)	138 (incl. conn.) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 280 g

Procom A/S reserve the right to amend specifications without prior notice.



PRO-PDI-2-TETRA-FME-J-...

TETRA combiner with SWR adaption/adjustment network

Replaced by PHY-TETRA-2-FME-...

- Combiner for coupling of two TETRA mobile transceivers on one common antenna.
- Factory-adjusted to either 380 to 410 MHz or 410 to 430 MHz.
- Compact dimensions - especially suitable for mobile applications.

DESCRIPTION

- FME-connectors for direct connection of FME-cable without extra adapter.
- For parallel operation of two two-way communication radios (transceivers) where highest possible decoupling (isolation) is necessary.
- Integrated SWR adjustment network for optimization of isolation in the frequency range of 380 to 410 MHz or 410 to 430 MHz. Via the adjustment network the effective SWR of the antenna can be optimized and consequently the isolation between the ports of the combiner clearly improved.
- High isolation obtainable: Up to 50 dB (Dependant on the SWR of the connected antenna).
- The adjustment of the SWR adjustment network takes place via built-in variable capacitors.
- Max. TETRA transmitter power 2 x 5 W.
- Also usable as equal or unequal power divider for max. 10 W.
- Very small ripple over the total frequency range.

ORDERING DESIGNATIONS

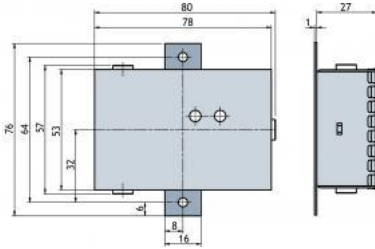
TYPE	PRODUCT NO.
PRO-PDI-2-TETRA-FME-J-380-410	Replaced by PHY-TETRA-2-FME-...
PRO-PDI-2-TETRA-FME-J-410-430	

SPECIFICATIONS

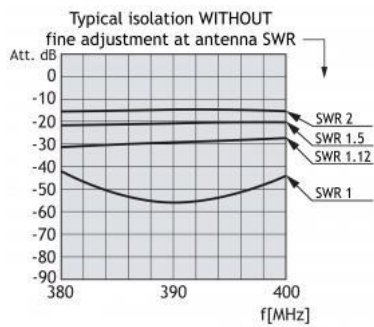
ELECTRICAL	
MODEL	PRO-PDI-2-TETRA-FME-J-...
FREQUENCY	380 - 410 MHz or 410 - 430 MHz
MAX. INPUT POWER (TETRA)	1 x 10 W if used as divider 2 x 5 W if used as coupler
NOMINAL DIVIDER LOSS	3.0 dB
TOTAL LOSS INCL. SPLITTER LOSS /COUPLER LOSS	< 3.5 dB
IMPEDANCE	Nom. 50 Ω
SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30° C → +60° C
CONNECTOR TYPE	FME-connectors
DIMENSIONS (L x W x H)	80 x 76 (inclusive of mounting plate) x 28 mm

WEIGHT	Approx. 360 g
MOUNTING	ø4 mm (two holes)

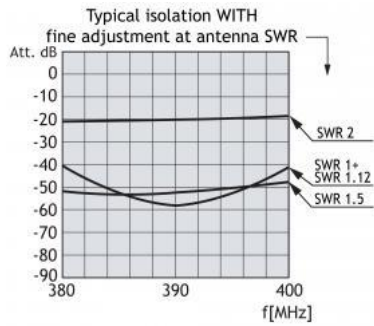
MOUNTING DETAILS



TYPICAL RESPONSE CURVE



TYPICAL RESPONSE CURVE





PRO-TAP 380-2700

Multiband PowerTapper 380 - 2700 MHz

Replaced by PRO-TAP 150-2700-...

- 500 W power tapper with 4.8 to 20 dB coupling covering the 380 - 2700 MHz.
- Taps off a portion the signal from the main line.

DESCRIPTION

- Excellent high power performance.
- Very low insertion loss over the entire frequency range.

Power tappers are frequently used in distributed antenna systems in buildings or tunnels. Tappers operate similarly to directional couplers but without the directivity (no isolation between output port and coupled port) and have relatively broad bandwidths.

ORDERING DESIGNATIONS

TYPE	COUPLING	PRODUCT NO.
PRO-TAP 380-2700-4.8 dB-N(f)	4.8 dB	Replaced by PRO-TAP 150-2700-...
PRO-TAP 380-2700-6 dB-N(f)	6 dB	
PRO-TAP 380-2700-8 dB-N(f)	8 dB	
PRO-TAP 380-2700-10 dB-N(f)	10 dB	
PRO-TAP 380-2700-15 dB-N(f)	15 dB	
PRO-TAP 380-2700-20 dB-N(f)	20 dB	
PRO-TAP 380-2700-4.8 dB-7/16(f)	4.8 dB	
PRO-TAP 380-2700-6 dB-7/16(f)	6 dB	
PRO-TAP 380-2700-8 dB-7/16(f)	8 dB	
PRO-TAP 380-2700-10 dB-7/16(f)	10 dB	
PRO-TAP 380-2700-15 dB-7/16(f)	15 dB	
PRO-TAP 380-2700-20 dB-7/16(f)	20 dB	

SPECIFICATIONS

ELECTRICAL						
MODEL	PRO-TAP 380-2700-...					
	4,8 dB	6 dB	8 dB	10 dB	15 dB	20 dB
FREQUENCY	380-1550 MHz & 1650-2700 MHz					
COUPLING (dB)	4.8	6	8	10	15	20

COUPLING FLATNESS (dB)	± 1	± 1	± 1	± 1	± 1	± 1
PERCENTAGE OF SIGNAL AT THE COUPLED PORT	33 %	25 %	16 %	10 %	3 %	1 %
PERCENTAGE OF SIGNAL AT THE MAIN LINE PORT	67 %	75 %	84 %	90 %	97 %	99 %
THROUGH LOSS	< 2.0	< 1.6	< 1.2	< 0.5	< 0.4	< 0.2
INPUT SWR	≤ 1.6	≤ 1.6	≤ 1.4	≤ 1.3	≤ 1.2	≤ 1.2
MAX. INPUT POWER	500 W					
IMPEDANCE	Nom. 50 Ω					
PIM 2X43 dBm	< -160 dBc					
COMPLIANCE	N(f)			RoHS, IP65		
	7/16(f)			RoHS, IP68		
MECHANICAL						
TEMP. RANGE	-30° C → +60° C					
CONNECTORS	N-female or 7/16-female					
DIMENSIONS (L x W x H)	145 x 33 x 51 mm					
WEIGHT	Approx. 550 g					



PRO-ATT ... dB-100-3

Attenuator 100 W

- This series includes 3 dB, 6 dB, 10 dB, 20 dB and 30 dB attenuators.

DESCRIPTION

- This series of attenuators has very low SWR and attenuation flatness and is especially suitable for use with:
 - Coaxial Transmission Lines
 - Power Monitors
 - Watt Meters
- The attenuators have a finish of black anodization.

ORDERING DESIGNATIONS

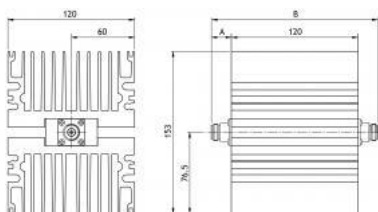
TYPE	PRODUCT NO.
PRO-ATT 3 dB-100-3-N(f)	200001731
PRO-ATT 6 dB-100-3-N(f)	200001757
PRO-ATT 10 dB-100-3-N(f)	200001758
PRO-ATT 20 dB-100-3-N(f)	200001743
PRO-ATT 30 dB-100-3-N(f)	200001742
PRO-ATT 3 dB-100-3-7/16(f)	200001509
PRO-ATT 6 dB-100-3-7/16(f)	200002538
PRO-ATT 10 dB-100-3-7/16(f)	200002510
PRO-ATT 20 dB-100-3-7/16(f)	200002539
PRO-ATT 30 dB-100-3-7/16(f)	200002540

SPECIFICATIONS

ELECTRICAL		
MODEL	PRO-ATT ... dB-100-3	
FREQUENCY RANGE	DC - 3 GHz	
MAX. INPUT POWER		
	3 dB, 6 dB:	100 W
	Up to 50°C ambient temperature:	Linearly derated to 70 W at 70°C ambient temperature - see curve below
	10 dB, 20 dB, 30 dB:	100 W

	Up to 30°C ambient temperature:	Linearly derated to 50 W at 70°C ambient temperature - see curve below	
POWER RATING REMARKS		Unrestricted airflow necessary for operating at maximum power	
ATTENUATION		See table below	
IMPEDANCE		Nom. 50 Ω	
SWR		<1.25	
MECHANICAL			
TEMP. RANGE		-35°C → +70°C	
CONNECTORS		N-female or 7/16 DIN-female	
DIMENSIONS (L x W x H)		152 x 120 x 120 mm / 5.98 x 4.72 x 4.72 in.	
WEIGHT		Approx. 2500 g / 5.51 lb.	
MODEL	ATTENUATION	ATT. DEVIATION	
		DC - 2.0 GHz	2.0 - 3.0 GHz
PRO-ATT 3 dB-100-3	3 dB	+/-0.5 dB	+/-0.75 dB
PRO-ATT 6 dB-100-3	6 dB	+/-0.5 dB	+/-1.0 dB
PRO-ATT 10 dB-100-3	10 dB	+/-0.75 dB	+/-1.5 dB
PRO-ATT 20 dB-100-3	20 dB	+/-0.75 dB	+/-1.5 dB
PRO-ATT 30 dB-100-3	30 dB	+/-0.75 dB	+/-1.5 dB

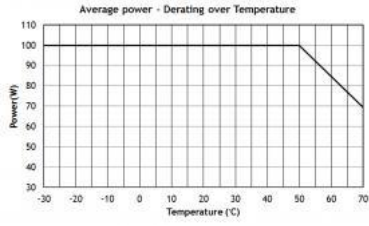
DIMENSIONS



MODEL	A	B
PRO-ATT ... dB-100-3-N(f)	18.5 mm (0.73 in.)	157 mm (6.18 in.)
PRO-ATT ... dB-100-3-7/16(f)	21.5 mm (0.85 in.)	163 mm (6.42 in.)

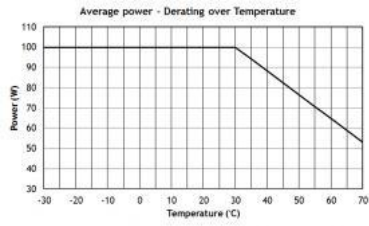
AMBIENT TEMPERATURE FOR

3 dB and 6 dB



AMBIENT TEMPERATURE FOR

10 dB, 20 dB and 30 dB





PRO-PDI2-40-1G-3 dB-10W-N

Power Divider 1:2

- 10 W equal power divider.
- The divider covers the frequency range from 40 - 1000 MHz.

- Very little ripple on divider output over the entire frequency range.

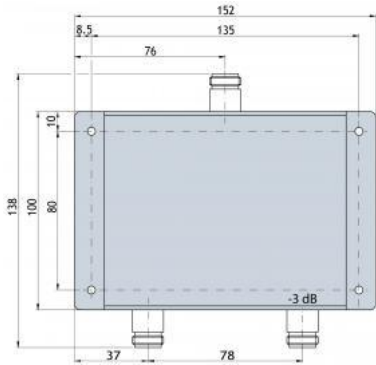
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-3 dB-10W-N	210000438

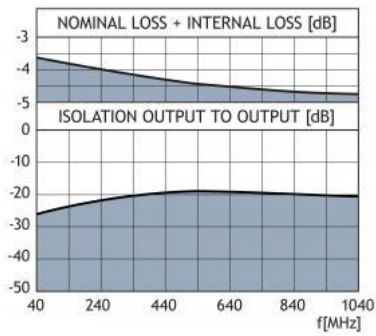
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-3 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	3.0 dB
TOTALLY LOSS INCL. NOMINAL LOSS	≤ 3.7 dB @ 40 MHz ≤ 4.8 dB @ 1000 MHz
DIVIDER OUTPUT	Equal
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVES





PRO-PDI2-40-1G-8 dB-10W-N

Power Divider 1:6.3

- 10 W unequal power divider.
- The divider covers the frequency range from 40 - 1000 MHz.

- Very little ripple on divider output over the entire frequency range.

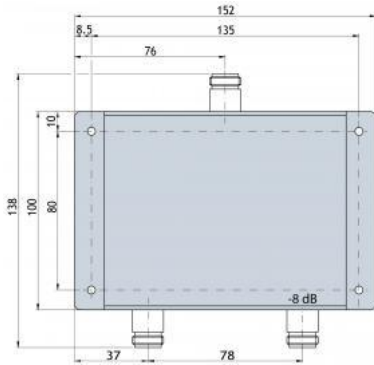
ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
PRO-PDI2-40-1G-8 dB-10W-N	210000444

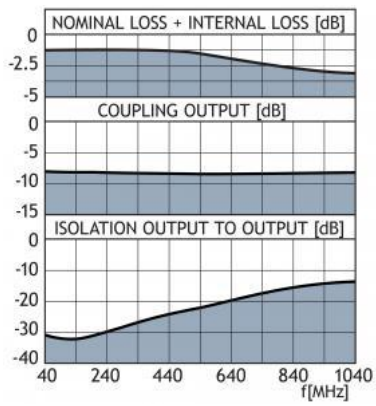
SPECIFICATIONS

ELECTRICAL	
MODEL	PRO-PDI2-40-1G-8 dB-10W-N
FREQUENCY RANGE	40 - 1000 MHz
MAX. INPUT POWER	10 W
NOMINAL DIVIDER LOSS	0.75 dB
TOTALLY LOSS INCL. NOMINAL LOSS	1.8 dB @ 40 MHz 2.9 dB @ 1000 MHz
ISOLATION OUTPUT TO OUTPUT	> 10 dB
DIVIDER OUTPUT	-8.0 dB ± 0.5 dB
IMPEDANCE	Nom. 50 Ω
INPUT SWR	< 1.5
MECHANICAL	
TEMP. RANGE	-30°C → +60°C
CONNECTORS	N-female
DIMENSIONS	138 (incl. connectors) x 152 (incl. flanges) x 35 mm
WEIGHT	Approx. 360 g

MOUNTING DETAILS



TYPICAL RESPONSE CURVE





PRO-LNAHP-4-3-2

Low-noise Preamplifier for the 4m, 3m and 2m bands 68-240 MHz

- Miniature high-dynamic range low-noise preamplifier for the 4m LMR band, the FM radio band, the VHF air band, the 2m LMR band and the DAB radio band.
- Covers 68 MHz - 240 MHz.

DESCRIPTION

- For use where additional preamplification may be required:
 - In receiver systems to ensure low system noise figure
 - As buffer amplifier in RF signal distribution systems
 - As buffer amplifier to compensate high cable loss
 - As preamplifier for measuring instruments
- Adjustable gain.
- Very low noise figure ensures best possible S/N ratio of weak RF signals.
- Excellent large signal behaviour ensures handling of strong RF signals with very low level of IM and harmonic distortion.
- Low power consumption.
- Models for 12 VDC or 24 VDC supply voltage available (please see ordering designations).
- DC supply on solder terminal or on 2.5mm barrel DC connector.
- RF connectors: N-female on input and output ports (other types on request).
- Low weight.
- Wide temperature range.
- Sturdy aluminium box.
- Black vinyl coated to prevent corrosion.

ORDERING DESIGNATIONS

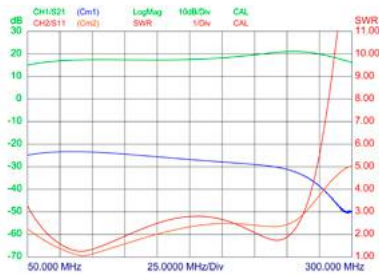
TYPE	PRODUCT NO.
PRO-LNAHP-4-3-2-12V-N	210000175
PRO-LNAHP-4-3-2-24V-N	210002296
ACCESSORIES	
ADAPTOR AC/DC 12V EU	240000040
ADAPTOR AC/DC 12V UK	240000041

SPECIFICATIONS

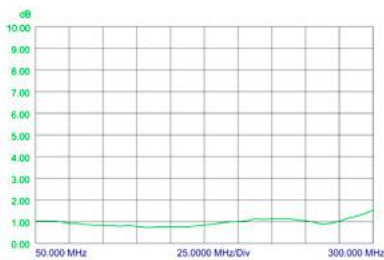
ELECTRICAL	
FREQUENCY RANGE	68-240 MHz
NOMINAL GAIN	18 dB (Gain adj. 8 dB to 18 dB)
GAIN RIPPLE	≤ ±2 dB
NOISE FIGURE @ 23°C	< 1.5 dB, typ. < 1.0 dB
MAX. OUTPUT POWER @ 1DB COMPRESSION (P1DB)	> +17 dBm @ max. gain

Output 2 ND order intercept point (OIP ₂)	> +47 dBm @ max. gain
Output 3 RD order intercept point (OIP ₃)	> +31 dBm @ max. gain
MAX. NON-DESTRUCTIVE INPUT POWER	+17 dBm
ISOLATION OUTPUT TO INPUT	> 20 dB
NOMINAL IMPEDANCE	Nom. 50 Ω
SWR (INPUT & OUTPUT)	Max. 3.5 typ. < 2.0
DC SUPPLY VOLTAGE / CURRENT	11 to 14 V DC / 60 mA
MECHANICAL	
CONNECTORS	N-female (standard), TNC(f), BNC(f) or SMA(f) on request
DIMENSIONS (L x W x H)	138 x 152 x 35 mm / 5.43 x 5.98 x 1.38 in. (incl. connectors and flanges)
WEIGHT	Approx. 350 g / 0.77 lb.
MOUNTING	∅4.3 / ∅0.17 in. (four holes)
ENVIRONMENTAL	
TEMPERATURE RANGE	-30 °C to +60 °C

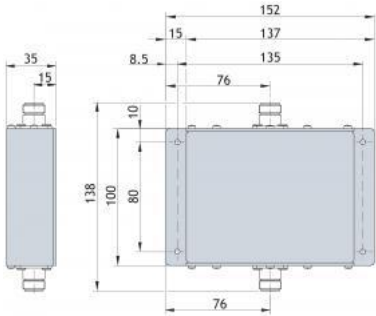
Typical Gain and SWR



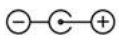
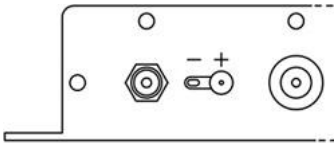
Typical Noise Figure



MOUNTING DETAILS



Power supply connection



ADAPTOR AC/DC 12V EU +ADAPTOR AC/DC 12V UK



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