Data Sheet

HUBER+SUHNER

Flexible RF cable
RG_214_HIFLEX Item: 22512156

Description

RG: RG type RF cables

RG214 High-flexible, 50 Ohm, 6 GHz, 85°C, ø10.8 mm, PVC jacket

Technical Data

Construction

	Material	Detail	Diameter
Centre conductor	Copper, Silver plated	Strand-19	2.25 mm
Dielectric	TPO (Olefine TPE)		7.3 mm
Outer conductor	Copper, Silver plated	Braid, 93%	8 mm
Outer conductor	Copper, Silver plated	Braid, 95 %	8.7 mm
Jacket	PVC II (low migration)	RAL 9005 - bk	10.8 mm +/- 0.15

Print: HUBER+SUHNER RG 214 HiFlex 50 Ohm (production order number)

Electrical Data

Impedance		50 Ω +/- 2
Operating Frequency		6 GHz
Capacitance		101 pF/m
Velocity of signal propagation		66 %
Signal delay		5.03 ns/m
Screening effectiveness		≥ 70 dB (up to 1 GHz)
Operating voltage		≤ 5 kV_{rms} (at sea level)
Test voltage		10 kV_{rms} (50 Hz/1 min)
Phase vs Temperature	-40°C... + 80°C	16200 ppm
Phase vs Bending		5 °/GHz

Mechanical Data

Weight		18.5 kg/100 m
Min. bending radius	static	15 mm
	repeated (for ≤ 250000 bendings)	60 mm
	dynamic	100 mm

Environmental Data

Temperature range	-25 °C ... +85 °C
Installation temperature	-20 °C... +60 °C
Flame propagation test	IEC 60332-1,
Halogen free	No
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
1907/2006/EC (REACH)	compliant

Additional Information

MIL reference: M17/190-00001 (former reference: M17/75-RG214)

Remarks

(For details refer to the HUBER+SUHNER RF CABLES GENERAL CATALOGUE or contact your nearest HUBER+SUHNER partner)

Suitable Connectors

Cable group	U32 7 mm / 50 Ohm

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Matrix typical Attenuation [formula: (a*f^0.5 + b*f)] and maximum Power CW [formula: (p/f^0.5)]
Coefficients:

a =	0.285	b =	0.0679	f_{max} =	6	P at 1GHz =	320

Frequency	Nom. attenuation	Nom. attenuation	Max. CW power
(GHz)	(dB / m)	(dB / ft)	(W)
	sea level 25° C ambient temperature	sea level 25° C ambient temperature	sea level 40° C ambient temperature
0,3	0,18	0,054	584
0,6	0,26	0,080	413
0,9	0,33	0,101	337
1,2	0,39	0,120	292
1,5	0,45	0,137	261
1,8	0,5	0,154	239
2,1	0,56	0,169	221
2,4	0,6	0,184	207
2,7	0,65	0,199	195
3,0	0,7	0,213	185
3,3	0,74	0,226	176
3,6	0,79	0,239	169
3,9	0,83	0,252	162
4,2	0,87	0,265	156
4,5	0,91	0,277	151
4,8	0,95	0,290	146
5,1	0,99	0,302	142
5,4	1,03	0,314	138
5,7	1,07	0,325	134
6,0	1,11	0,337	131