

SpinnerFlex® TopFit Jumper SF 1/2"-50-PE and SF 1/2"-50-FR



Electrical Specification						
Impedance	50 Ω					
IM3 (2 x 43 dBm) ¹⁾	≤ -160 dBc / typ. -165 dBc					
1) Jumper cables with improved IM3 values are available on request.						
VSWR ²⁾	Length ≤ 6 m			Length > 6 m		
Frequency range	straight/ straight	straight/ right angle	right angle/ right angle	straight/ straight	straight/ right angle	right angle/ right angle
≤ 1,000 MHz	≤ 1.05 typ. 1.03	≤ 1.06 typ. 1.04	≤ 1.07 typ. 1.05	≤ 1.07 typ. 1.04	≤ 1.08 typ. 1.05	≤ 1.09 typ. 1.06
≤ 2,200 MHz	≤ 1.06 typ. 1.05	≤ 1.08 typ. 1.06	≤ 1.10 typ. 1.07	≤ 1.08 typ. 1.06	≤ 1.10 typ. 1.07	≤ 1.12 typ. 1.08
≤ 2,700 MHz	≤ 1.10 typ. 1.06	≤ 1.12 typ. 1.07	≤ 1.14 typ. 1.08	≤ 1.12 typ. 1.07	≤ 1.14 typ. 1.08	≤ 1.16 typ. 1.09
≤ 3,800 MHz	≤ 1.12 typ. 1.10	≤ 1.14 typ. 1.11	≤ 1.16 typ. 1.12	≤ 1.14 typ. 1.11	≤ 1.16 typ. 1.12	≤ 1.18 typ. 1.13
≤ 5,825 MHz ³⁾	≤ 1.18 typ. 1.14	≤ 1.20 typ. 1.16	≤ 1.22 typ. 1.18	≤ 1.20 typ. 1.15	≤ 1.22 typ. 1.17	≤ 1.24 typ. 1.19
2) The given VSWR values are maintained within all global cellular frequency bands.						
3) Extended frequency range for premium quality. Please specify before order.						
	960 MHz	2200 MHz	2700 MHz	3800 MHz	5825 MHz	
Insertion loss, nominal <small>(20 °C cable temperature values without connectors, typ. connector attenuation is ≤ 0.01 dB)</small>	11.56 dB/100m	18.64 dB/100m	21.06 dB/100m	25.90 dB/100m	33.79 dB/100m	
max. Power rating <small>(40 °C ambient temperature)</small>	0.91 kW	0.56 kW	0.49 kW	0.42 kW	0.31 kW	

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Mechanical Specification						
Minimum bending radius	Single / repeated bending radius 25 mm / 32 mm					
Crush resistance	20.4 N/mm					
Recommended clamp spacing	800 mm					
Cable jacket	PE black (grey jacket available on request)					
Nominal outer jacket diameter	13.7 mm					
Length [m]	0.5 - 2.9	3.0 - 3.9	4.0 - 7.9	8.0 - 10.9	11.0 - 14.9	15.0 - 19.9
Tolerances [mm]	+20 / -10	+30 / -15	+50 / -30	+80 / -50	± 100	± 120
Connector	Material			Surface		
Inner conductor	Cu-alloy			Ag-plated		
Outer conductor	Cu-alloy			Ag-plated		
Other metal parts	Cu-alloy			Ni-plated		
Insulation	PTFE, PE					
Sealing	Silicone rubber					
Installation instruction	M30804					

Environmental Specification			
Degree of protection	IP 68 (0.1 bar / 6 hours / unmated) IP 68 (1 bar / 1 hour / mated)		
Recommended temperature range	Storage	Installation	Operation
SF 1/2"-50-PE	-70 °C to +85 °C	-40 °C to +60 °C	-55 °C to +85 °C
SF 1/2"-50-FR	-30 °C to +80 °C	-25 °C to +60 °C	-30 °C to +80 °C
Cable jacket	Halogen free acc. to IEC 60754-1 and IEC 60754-2		
SF 1/2"-50-PE	Fire retardant acc. to IEC 60332-1, IEC 60332-3.C, IEC 61034 and UL 1581-1991		
SF 1/2"-50-FR	Fire retardant acc. to IEC 60332-1, IEC 60332-3.C, IEC 61034 and UL 1581-1991		
RoHS 2002/95/EC	Compliant		

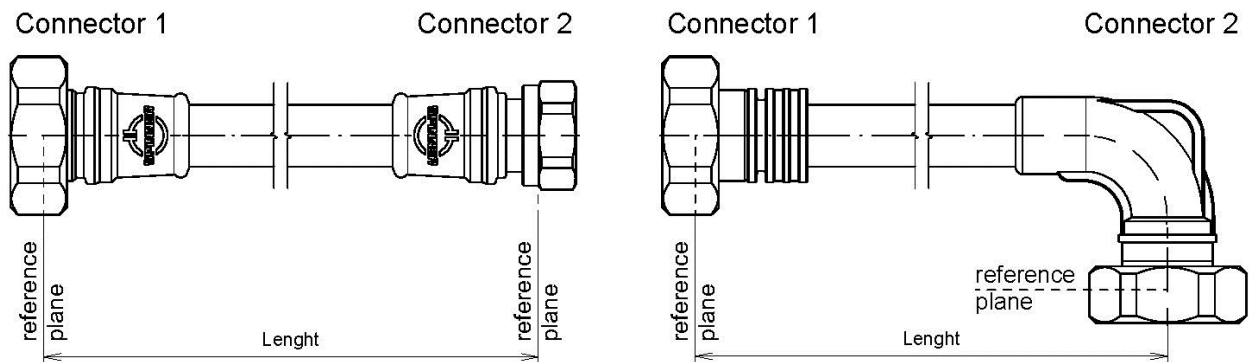
Customized jumpers

The jumpers shown above can be customized to meet specific requirements such as grey cable jacket, extended frequency range, predefined phase length or for measurement purpose. In latter case please specify required measurement protocol. In case of low-PIM test cables please specify the required IM3 thresholds (e.g. -170 dBc max.).



Figure shows low PIM measurement jumpers with N, 4.3-10 male screw type and 7-16 interfaces.

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Sales article numbers

Jumper	Cable type	Cable size	Cable jacket	Connector 1	Connector 2	Length	Unit	Length	Extra features
J	Z	X	Z	XZ	XZ	X	Z	X	Z
LF SF	L S	14 38 12	Blank for PE F G	Any combination of connectors below is possible. Please specify XZ combination for connectors 1 and 2. In case of pigtail, blank for connector 2.					Blank if not applicable
X = Connector system		Z = Connector style		X	Z				
7-16		male		7	M				
4.1-9.5		male right angle		41	R				
N		female		N	F				
		female bulk head			B				
		female panel four hole			P				
4.3-10		male screw		43	MS				
		male hand screw			MH				
		male push-pull			MP				
		male right angle screw			RS				
		male right angle hand screw			RH				
		male right angle push-pull			RP				
		female			F				
		female bulk head			B				
		female panel four hole			P				
Length in meter/feet (dependent on unit specified)									
Meter							M		
Feet							F		
Length in decimeter/inch (dependent on unit specified)									
Phase length defined									P
Extended frequency range (> 3.800 MHz)									E
Connector specified on side B kitted to the jumper									K
Jumper set									S

Examples:

JL12-7M43RS-2M5 (LF 1/2" jumper with 7-16 male and 4.3-10 male right angle screw type; length 2.5 meter)

JS12-43MS-20F5 (SF 1/2" jumper with 4.3-10 male screw type and pigtail; length 20 feet + 5 inch)

JL12-7M7M-10M-K (LF 1/2" jumper with 7-16 male and loose end with 7-16 male as MultiFit kitted to the loose end; length 10.0 meter)

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7-16 connector system (according IEC 61169-4)

Plug straight	Plug right angle	Socket

4.3-10 connector system (according IEC 61169-54)

Plug straight (screw)	Plug right angle (screw)	Socket
Plug straight (hand-screw)	Plug right angle (hand-screw)	
Plug straight (push pull)	Plug right angle (push pull)	

Dimensions in mm, values above are maximum dimensions and can vary slightly dependent on the cable clamp used.

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4.1-9.5 connector system (according IEC 60169-11)

Plug straight	Plug right angle	

N connector system (according IEC 61169-16)

Plug straight	Plug right angle	Socket

Dimensions in mm, values above are maximum dimensions and can vary slightly dependent on the cable clamp used.