

## Cable assemblies

### Description and purpose

Microwave cable assemblies are designed to connect DUT to measuring ports of instruments. Micran has developed cable assemblies with male-male, female-female and female-male connectors with inch or metric thread on 7.0/3.04 mm and 3.5/1.52 mm path side, and with inch thread in 2.92/1.27 mm path and metric thread in 2.4/1.04 mm path. KSA assemblies are supplied with external metal armor of 10.5 mm diameter. These cable assemblies provide lowest insertion loss and reflection coefficient. Used materials, wear-proof coating, cable armor and special cable attachment design provide high stability of parameters and long service life with a great number of connect/disconnect cycles at operating temperatures between -60 °C and +85 °C. Minimum screen attenuation is 100 dB. Custom cable assemblies with maximum operating temperatures up to +110 °C are available for ordering. When making your order, you may select cable length L from 300 mm to 15m. Also, you may select required cable assembly, using convenient tool Cable Assembly Selection Assistant at [www.micran.ru](http://www.micran.ru).



### Specification

#### Measuring cable assemblies in 7.0/3.04 mm path

Model	Connectors	Protection	Fig.	Frequency range, GHz	VSWR, max. (typ.)	Insertion loss per 1m, dB, max.		
KS18A-01R-01R	Type III (female) – type III (female)	—	1	0 ... 18	1.2 (1.15)	1.6		
KSA18A-01R-01R		Yes	2					
KS18D-01R-01R	Type III (female) – type N (female)	—	1			1		
KS18A-01R-11R		—	1					
KSA18A-01R-11R	Type III (female) – type N (female)	Yes	2			1.6		
KS18D-01R-11R		—	1					
KS18A-11R-11R	Type N (female) – type N (female)	—	1			1		
KSA18A-11R-11R		Yes	2					
KS18D-11R-11R	Type N (female) – type N (female)	—	1			1.6		
KS18A-01-01		—	3					
KSA18A-01-01	Type III (male) – type III (male)	Yes	4			0 ... 18	1.2 (1.15)	1.6
KS18D-01-01		—	3					
KS18A-01-11	Type III (male) – type N (male)	—	3					1
KSA18A-01-11		Yes	4					
KS18D-01-11	Type III (male) – type N (male)	—	3					1.6
KS18A-11-11		—	3					
KSA18A-11-11	Type N (male) – type N (male)	Yes	4					1
KS18D-11-11		—	3					
KS18A-01R-01	Type III (female) – type III (male)	—	5					1.6
KSA18A-01R-01		Yes	6					
KS18D-01R-01		—	5					

Model	Connectors	Protection	Fig.	Frequency range, GHz	VSWR, max. (typ.)	Insertion loss per 1m, dB, max.
KS18A-01R-11	Type III (female) – type N (male)	—	5	0 ... 18	1.2 (1.15)	1.6
KSA18A-01R-11		Yes	6			
KS18D-01R-11		—	5			
KS18A-11R-01	Type N (female) – type III (male)	—	5			
KSA18A-11R-01		Yes	6			1.6
KS18D-11R-01		—	5			
KS18A-11R-11	Type N (female) – type N (male)	—	5			
KSA18A-11R-11		Yes	6			
KS18D-11R-11		—	5	1		

### Measuring cable assemblies between 7.0/3.04 mm and 3.5/1.52 mm paths

Model	Connectors	Protection	Fig.	Frequency range, GHz	VSWR, max. (typ.)	Insertion loss per 1m, dB, max
KS18A-01R-03R	Type III (female) – type IX, ver. 3 (female)	—	7	0 ... 18	1.2 (1.15)	1.6
KSA18A-01R-03R		Yes	8			
KS18A-01R-13R	Type III (female) – 3.5 mm (female)	—	7			
KSA18A-01R-13R		Yes	8			
KS18A-11R-03R	Type N (female) – type IX, ver. 3 (female)	—	7			
KSA18A-11R-03R		Yes	8			
KS18A-11R-13R	Type N (female) – 3.5 mm (female)	—	7			
KSA18A-11R-13R		Yes	8			
KS18A-01-03	Type III (male) – type IX, ver. 3 (male)	—	9			
KSA18A-01-03		Yes	10			
KS18A-11-03	Type N (male) – type IX, ver. 3 (male)	—	9			
KSA18A-11-03		Yes	10			
KS18A-11-13	Type N (male) – 3.5 mm (male)	—	9			
KSA18A-11-13		Yes	10			
KS18A-01-13	Type III (male) – 3.5 mm (male)	—	9			
KSA18A-01-13		Yes	10			
KS18A-01R-03	Type III (female) – type IX, ver. 3 (male)	—	11			
KSA18A-01R-03		Yes	12			
KS18A-01R-13	Type III (female) – 3.5 mm (male)	—	11			
KSA18A-01R-13		Yes	12			
KS18A-11R-03	Type N (female) – type IX, ver. 3 (male)	—	11			
KSA18A-11R-03		Yes	12			
KS18A-11R-13	Type N (female) – 3.5 mm (male)	—	11			
KSA18A-11R-13		Yes	12			
KS18A-01-03R	Type III (male) – type IX, ver. 3 (female)	—	13			
KSA18A-01-03R		Yes	14			
KS18A-01-13R	Type III (male) – 3.5 mm (female)	—	13			
KSA18A-01-13R		Yes	14			
KS18A-11-03R	Type N (male) – type IX, ver. 3 (female)	—	13			
KSA18A-11-03R		Yes	14			
KS18A-11-13R	Type N (male) – 3.5 mm (female)	—	13			
KSA18A-11-13R		Yes	14			

### Measuring cable assemblies in 3.5/1.52 mm path

Model	Connectors	Protection	Fig.	Frequency range, GHz	VSWR, max (typ.)	Insertion loss per 1 m, dB, max
KS20A-03R-03R	Type IX, ver. 3 (female) – type IX, ver. 3 (female)	—	15	0 ... 20	1.2 (1.15)	1.9
KSA20A-03R-03R		Yes	16			
KS20A-03R-13R	Type IX, ver. 3 (female) – 3.5 mm (female)	—	15			
KSA20A-03R-13R		Yes	16			
KS20A-13R-13R	3.5 mm (female) – 3.5 mm (female)	—	15			
KSA20A-13R-13R		Yes	16			
KS20A-03-03	Type IX, ver. 3 (male) – type ix, ver. 3 (male)	—	17			
KSA20A-03-03		Yes	18			
KS20A-03-13	Type IX, ver. 3 (male) – 3.5 mm (male)	—	17			
KSA20A-03-13		Yes	18			
KS20A-13-13	3.5 mm (male) – 3.5 mm (male)	—	17			
KSA20A-13-13		Yes	18			
KS20A-03R-03	Type IX, ver. 3 (female) – type IX, ver. 3 (male)	—	19			
KSA20A-03R-03		Yes	20			
KS20A-03R-13	Type IX, ver. 3 (female) – 3.5 mm (male)	—	19			
KSA20A-03R-13		Yes	20			
KS20A-13R-03	3.5 mm (female) – type IX, ver. 3 (male)	—	19			
KSA20A-13R-03		Yes	20			
KS20A-13R-13	3.5 mm (female) – 3.5 mm (male)	—	19			
KSA20A-13R-13		Yes	20			

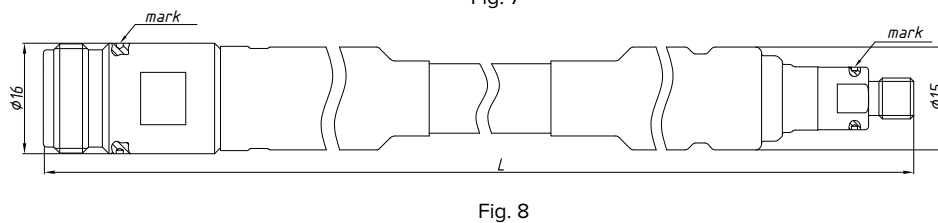
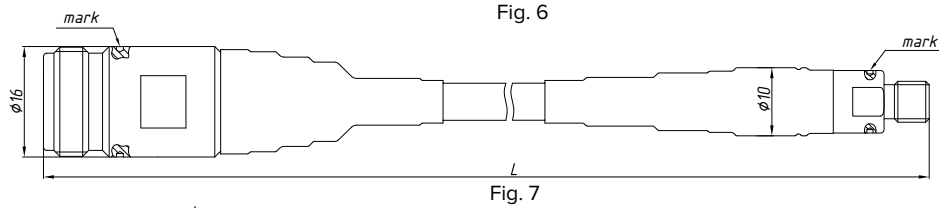
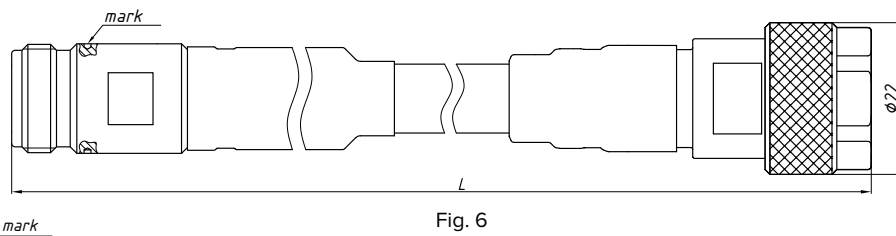
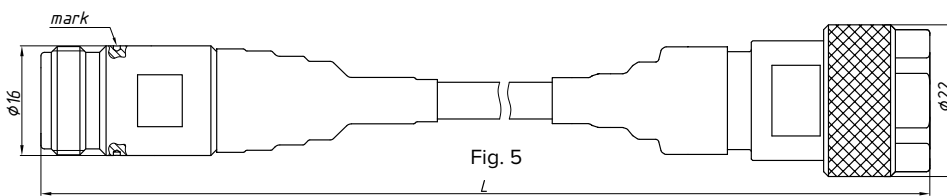
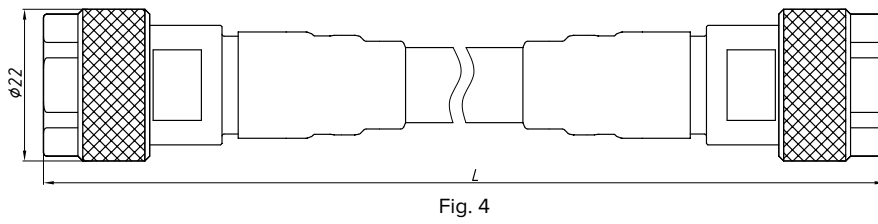
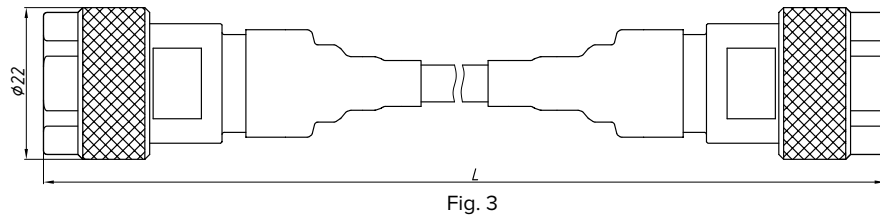
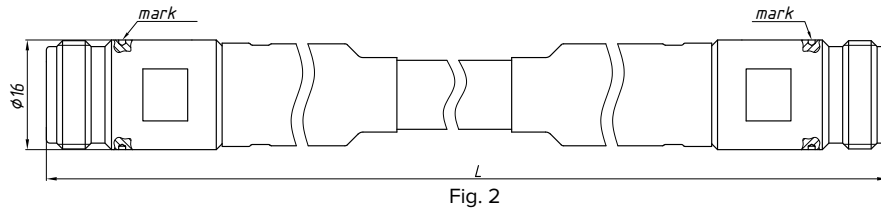
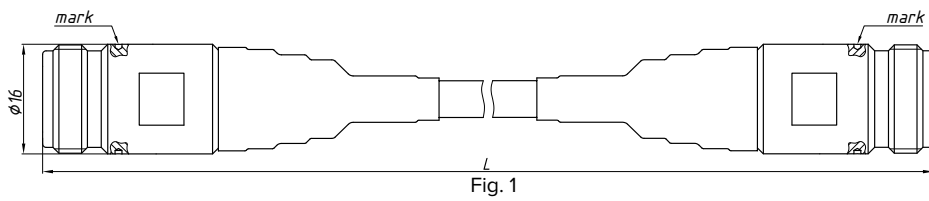
### Measuring cable assemblies in 2.92/1.27 mm path

Model	Connectors	Protection	Fig.	Frequency range, GHz	VSWR, max (typ.)	Insertion loss per 1 m, dB, max
KS40V-14R-14R	2.92 mm (female) – 2.92 mm (female)	—	21	0 ... 40	1.3 (1.25)	2.9
KSA40V-14R-14R		Yes	22			
KS40V-14-14	2.92 mm (male) – 2.92 mm (male)	—	23			
KSA40V-14-14		Yes	24			
KS40V-14R-14	2.92 mm (female) – 2.92 mm (male)	—	25			
KSA40V-14R-14		Yes	26			

### Measuring cable assemblies in 2.4/1.042 mm path

Model	Connectors	Protection	Fig.	Frequency range, GHz	VSWR, max (typ.)	Insertion loss per 1 m, dB, max
KS40A-05R-05R	2.4 mm (female) – 2.4 mm (female)	—	27	0 ... 40	1.3 (1.2)	2.9
KSA40A-05R-05R		Yes	28			
KS40A-05-05	2.4 mm (male) – 2.4 mm (male)	—	29			
KSA40A-05-05		Yes	30			
KS40A-05R-05	2.4 mm (female) – 2.4 mm (male)	—	31			
KSA40A-05R-05		Yes	32			
KS50A-05R-05R	2.4 mm (female) – 2.4 mm (female)	—	27	0 ... 50	1.2 (0 - 15 GHz) 1.3 (15 - 40 GHz) 1.4 (40 - 50 GHz)	7
KSA50A-05R-05R		Yes	28			
KS50A-05-05	2.4 mm (male) – 2.4 mm (male)	—	29			
KSA50A-05-05		Yes	30			
KS50A-05R-05	2.4 mm (female) – 2.4 mm (male)	—	31			
KSA50A-05R-05		Yes	32			

Dimensions



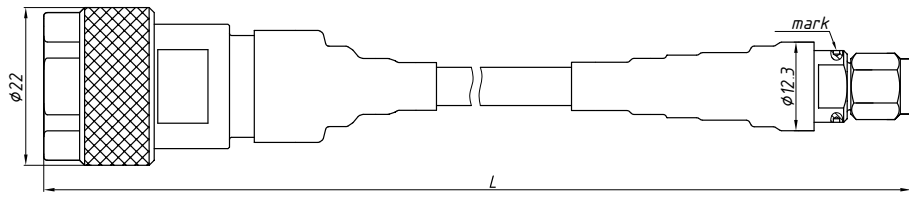


Fig. 9

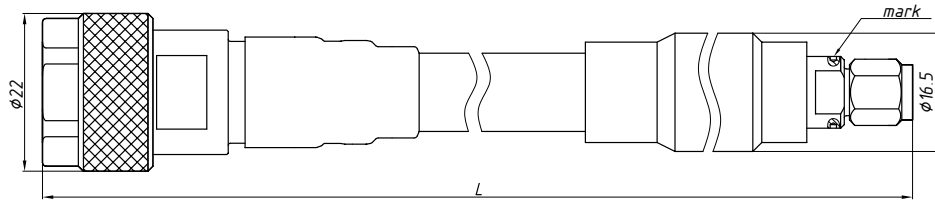


Fig. 10

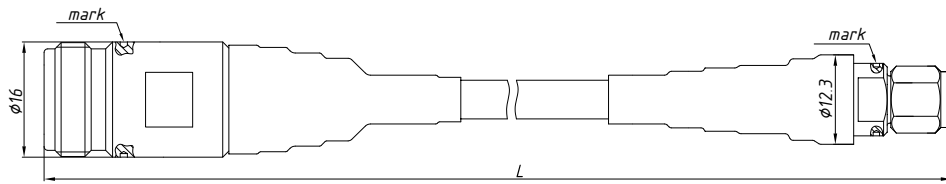


Fig. 11

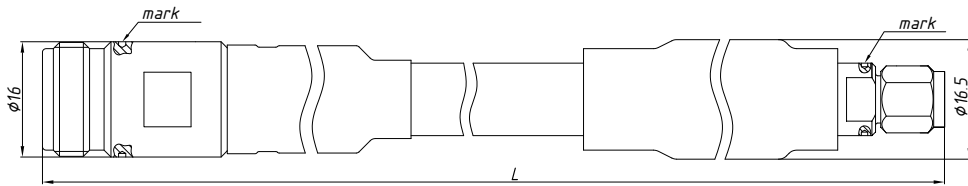


Fig. 12

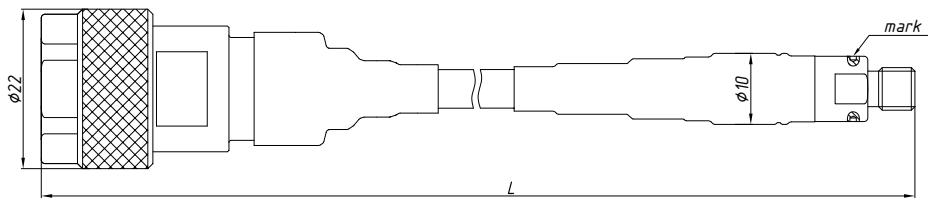


Fig. 13

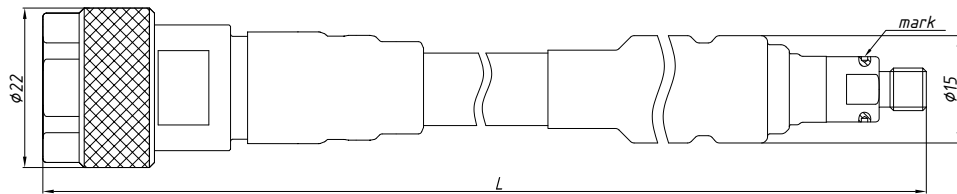


Fig. 14

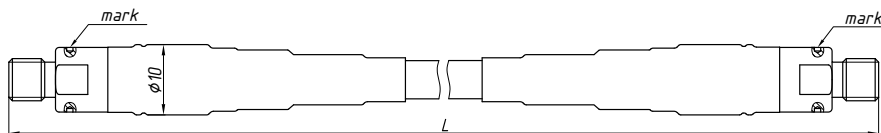


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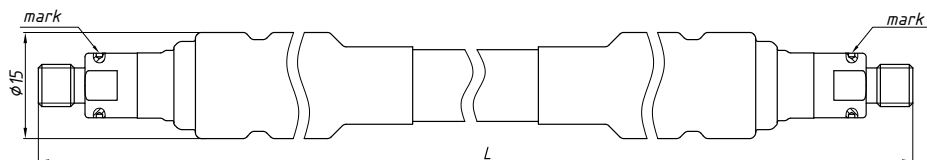


Fig. 16

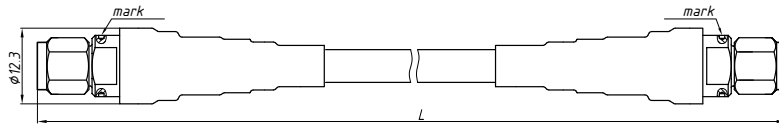


Fig. 17

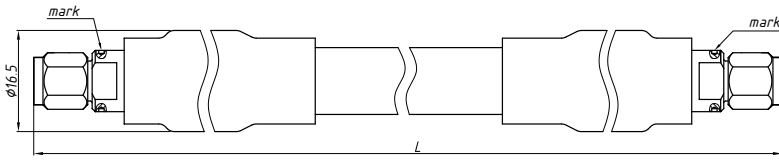


Fig. 18

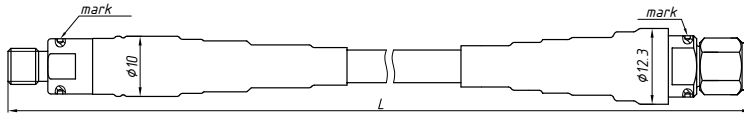


Fig. 19

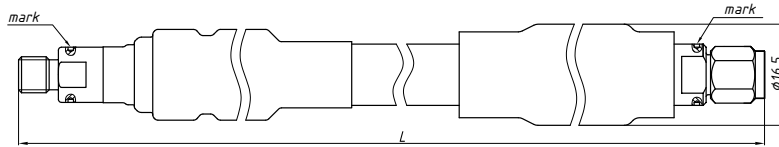


Fig. 20

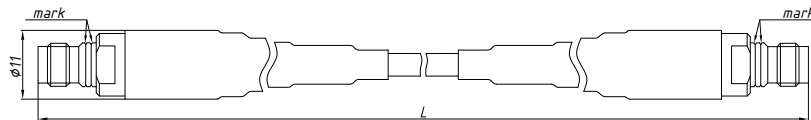


Fig. 21

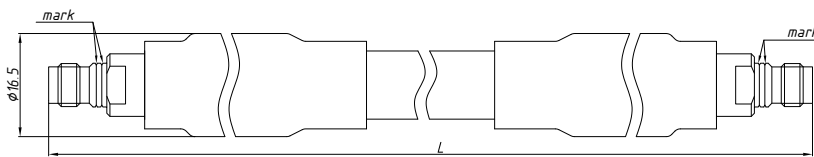


Fig. 22



Fig. 23

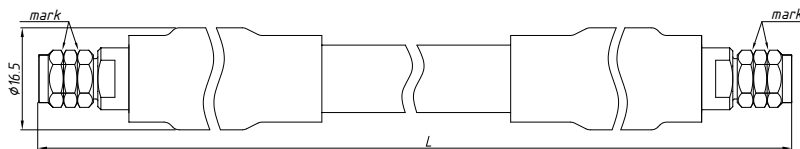


Fig. 24



Fig. 25

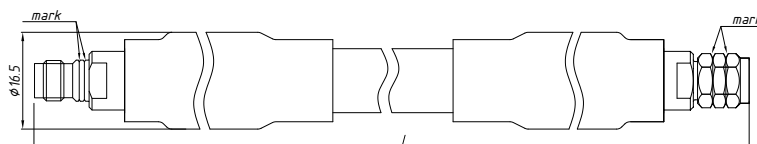


Fig. 26

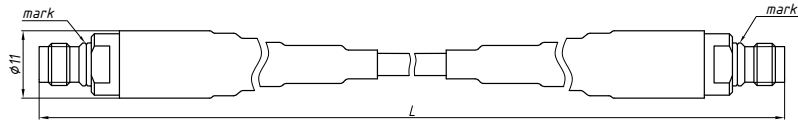


Fig. 27

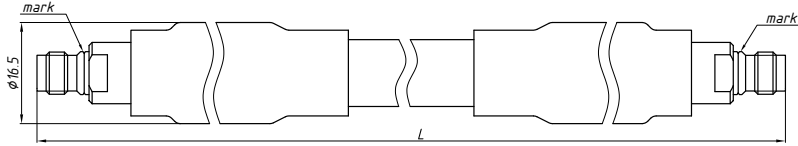


Fig. 28

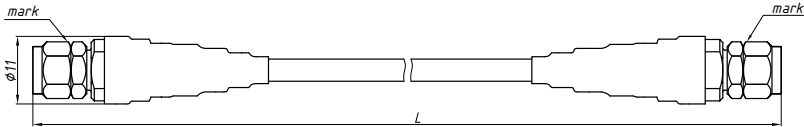


Fig. 29

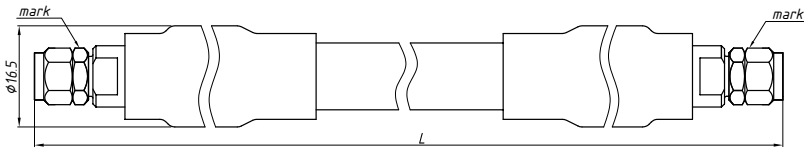


Fig. 30



Fig. 31

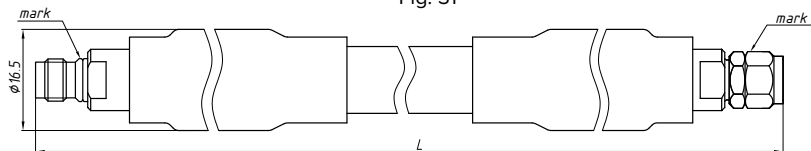


Fig. 32

### Ordering example

- KS18A-01R-01R-300 Cable assembly, type III (female) – type III (female) connectors, 0 to 18 GHz frequency range, 300 mm length.