

# MODEM CONNECTION CABLE



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Version 1.0

# DATASHEET

## INTRODUCTION

DKT now introduces a new series of halogen free connection cables. These have been developed to cope with the increasing number of sources of interference in subscriber home installations.

Type no.	Item no.	Length
JUMPER-F-QM 1M	20891	1 m
JUMPER-F-QM 5M	20892	5 m
JUMPER-F-QM 10M	20893	10 m
JUMPER-F-QM 0.7M	20895	0.7 m

## INTERFACES

Construction data		Jumper-F-QM 1M	Jumper-F-QM 5M	Jumper-F-QM 10M	Jumper-F-QM 0.7M
Inner conductor	Ø mm	1.13 mm Pure Copper			
Dielectric	Ø mm	4.8 mm Gas Injected Skin/Foam/Skin PE			
First foil		Aluminum Foil (Bonded to the Insulation)			
Braid		Aluminum Wire Braiding			
Second foil		Aluminum Foil (Bonded to the Insulation)			
Outer sheath	Ø mm	6.80 mm			
Jacket material		White Halogen Free, Flame Retardant			
Connectors		2 PCS F-male F-6-TD QM 7.0 SHORT			

Electrical data	Frequency [MHz]	Jumper-F-QM 1M	Jumper-F-QM 5M	Jumper-F-QM 10M	Jumper-F-QM 0.7M
Impedance	Ohm	75			
Return loss [dB] at 20°C [dB]	5 - 470	> 25			
	470 - 1200	> 22			
	1200 - 2000	> 19			
	2000 - 3000	> 18			
Attenuation at 20°C [dB]	1000	0.5	1.3	2.2	0.4
Screening attenuation [dB]	30 - 1000	> 85			
	1000 - 2000	> 75			
	2000 - 3000	> 65			
Transfer impedance	5 - 30	< 5 mOhm/m			

### Why Class A attenuation on cable shielding?

With increasing complexity in the transmitted signals, the services are far more sensitive to interference than before. With a screening effectiveness exceeding the requirements for Class A, the installation has a very high level of resistance to interference, which leads to less pixelation and signal outage. Problems can accelerate with LTE/4G signals if proper shielding is not applied. Typical applications for DOCSIS3.1 and TV are 18-1218MHz where Screening attenuation performance of the Jumper-F-QM xm cable assemblies will have comfortable margin to Class A

### Why halogen-free cable?

Halogens are a group of environmentally damaging elements. Examples of halogens are chlorine and bromine. These elements are released in installations and can be inhaled by those in the immediate vicinity. These elements are released if there is a fire in an installation and can cause serious injury. This connection cable is manufactured without halogens, and thereby long-term damage as well as risks in case of fire are avoided.

### Advantages

- High screening effectiveness is necessary to avoid interference
- No toxic fumes in case of fire

### Screening attenuation & Transfer impedance

The curves are measurements for screening attenuation and transfer impedance on a Jumper-F-QM xm, with production tolerances Class A can be guaranteed and typically Class A+10dB can be achieved in the frequency range used for TV and DOCSIS3.1 data.

