QUASI-FLEX®
hand-formable
semi rigid substitute

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axon'
cable & interconnect

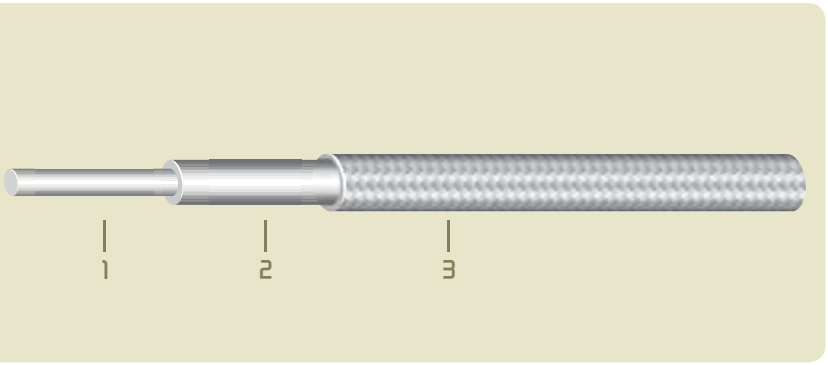
QUASI-FLEX®

hand-formable semi-rigid substitute

QUASI-FLEX® has been designed to replace semi-rigid cables whilst retaining similar electrical performances. The copper tube normally used on these cables has been replaced by an optimised tin soaked braided shield. QUASI-FLEX® cables are used to interconnect antennae and active elements, for example repeaters in the payload of a satellite.

QUASI-FLEX® cables have the following properties:

- Excellent memory properties.
- Easy to install hand-formable cable due to the optimised tin soaked shield.



Construction

Cable

1 - Inner conductor (SPCW or SPC).
2 - Dielectric: solid PTFE.
3 - Shield: tin soaked silver plated copper braid (2µm silver).

A protective jacket can be added over the braid.
The components used are manufactured according to ESCC-Q70-71A rev 1.
Operating temperature: -55°C/+150°C

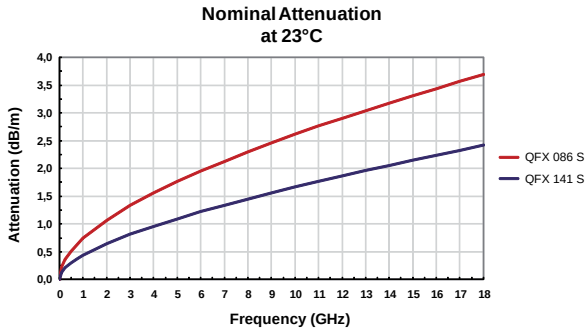
Connection

QUASI-FLEX® cables are fully compatible with standard SMA connectors for semi-rigid cables. Installation procedures are identical.

CABLE REFERENCE	INNER CONDUCTOR		DIELECTRIC		SHIELDING	
	NATURE	Ø mm	NATURE	Ø mm	NATURE	Ø mm
QFX 086 S - P540264	SPCW	0.51	PTFE	1.65	SPC	2.20
QFX 141 S - P540262	SPC	0.92	PFTE	2.95	SPC	3.58

Electrical characteristics

		QFX 086 S	QFX 141 S
IMPEDANCE (Ω)		50 ± 2	50 ± 2
CAPACITANCE (pF/m)		97	97
PROPAGATION VELOCITY (%)		69	69
WORKING VOLTAGE - MAX (V_{RMS})		1500	2500
INSULATION RESISTANCE		10^5 MΩ	10^5 MΩ
ATTENUATION (dB/m)	@ 1 GHz	0.74	0.44
(NOMINAL VALUES)	@ 3 GHz	1.33	0.81
	@ 5 GHz	1.76	1.09
	@ 10 GHz	2.61	1.66
	@ 18 GHz	3.69	2.42

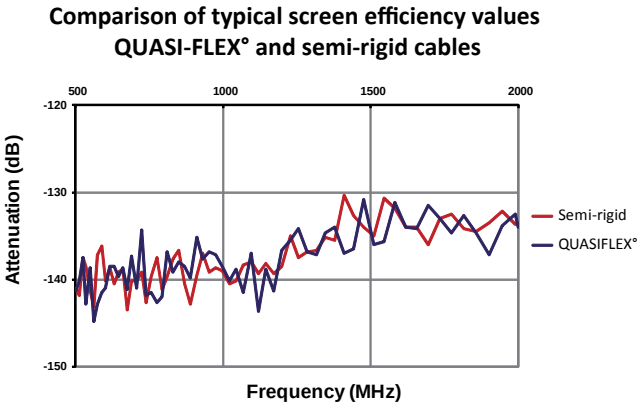


QUASI-FLEX® WITH SMA CONNECTOR

QUASI-FLEX® IS HAND-FORMABLE

Electromagnetic compatibility

The copper tube used for the shielding of semi-rigid cables ensures excellent shield efficiency properties. In order to replace these products, QUASI-FLEX® cables have to offer similar advantages. Tests have been carried out in a mode stirred chamber according to MIL-STD-1344. These tests show that the objectives have been achieved with results close to the limit of the test device sensitivity.



MEASUREMENTS IN AXON'S MODE STIRRED CHAMBER