



## Data sheet

## Cri/oFlex<sup>®</sup> 2

### Tackle your cryogenic cabling challenge!

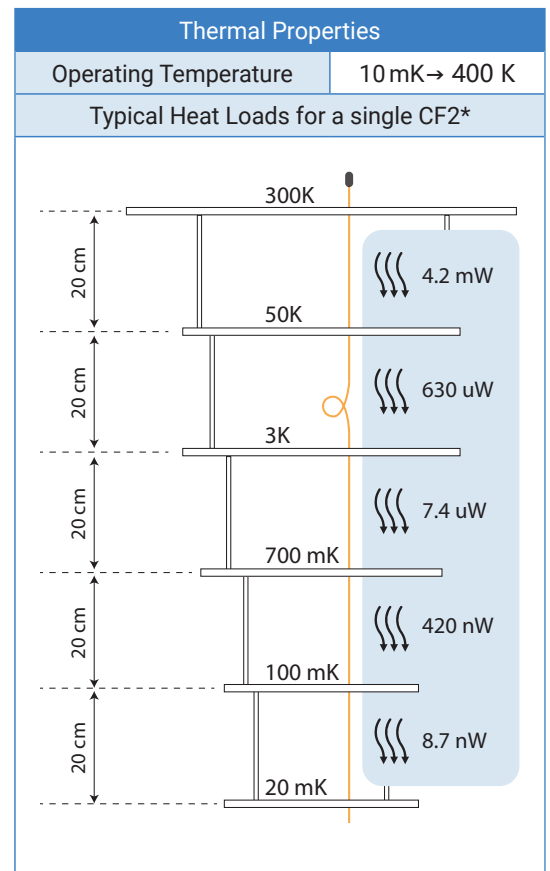
Cri/oFlex<sup>®</sup> cabling combines the robustness and compatibility of standard SMA and SMP connectors with the versatility of an in-house developed transmission line platform on flexible substrates. Cri/oFlex<sup>®</sup> is specifically designed for cryogenic environments where thermal load, microwave performance, small form factor and phase stability are critical. Cri/oFlex<sup>®</sup> comes as a standardized cable setup (CF2) as described below, but can be highly customized upon request. Cri/oFlex<sup>®</sup> CF2 products are ideally suited for very compact and densely packed cryogenic environments. Providing very sturdy cables that can be bent countless times, Cri/oFlex<sup>®</sup> solves your cryogenic cabling challenges!

### Features

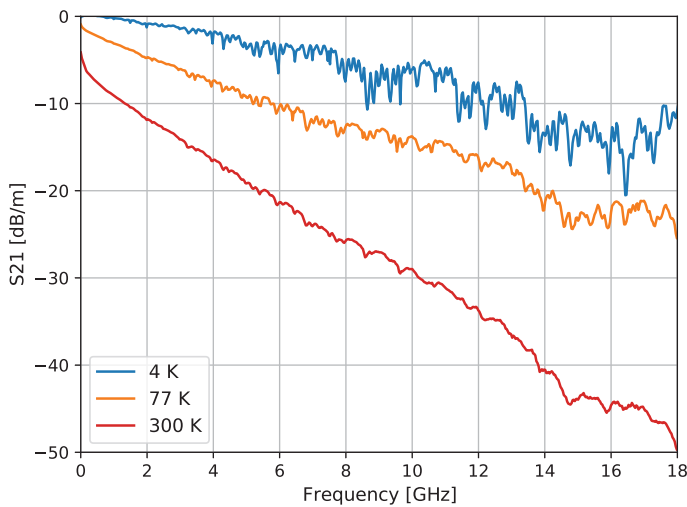
- Extremely flexible
- Excellent phase stability
- Small form factor
- Countless bending and straightening cycles
- Resilient against thermal cycling
- Low thermal load

General Properties	
Connector	
Connector Type	SMA, SMP, Mini-SMP (all male)
Connector Configuration	Straight and Right-angle
Connector Material	Goldplated Brass, PEEK
Housing	Stycast 2850
Flex	
Length	200 to 1000 mm
Width	2 mm
Thickness	0.3 mm
Materials	Polyimide & Silver (Ag)
Transmission-line type	Stripline
Min. Bending Radius	1 mm
Required Length for Longitudinal Rotation	5 cm / 180° rotation

Electrical Properties	
Impedance	Designed for 50 $\Omega$
Operating Frequency	DC to 26 GHz (dependent on connector type)
Signal Isolation (Crosstalk)	< -60 dB, flex to flex, for connector data contact us



\*Multi-channel (CF3) significantly reduces heat load per channel



### Microwave Properties

The figure above shows the roll-off (S21) of a typical DC-18 GHz bandwidth flex cable. Depending on connector type the overall attenuation may vary slightly. Reflection (S11) data is available upon request.

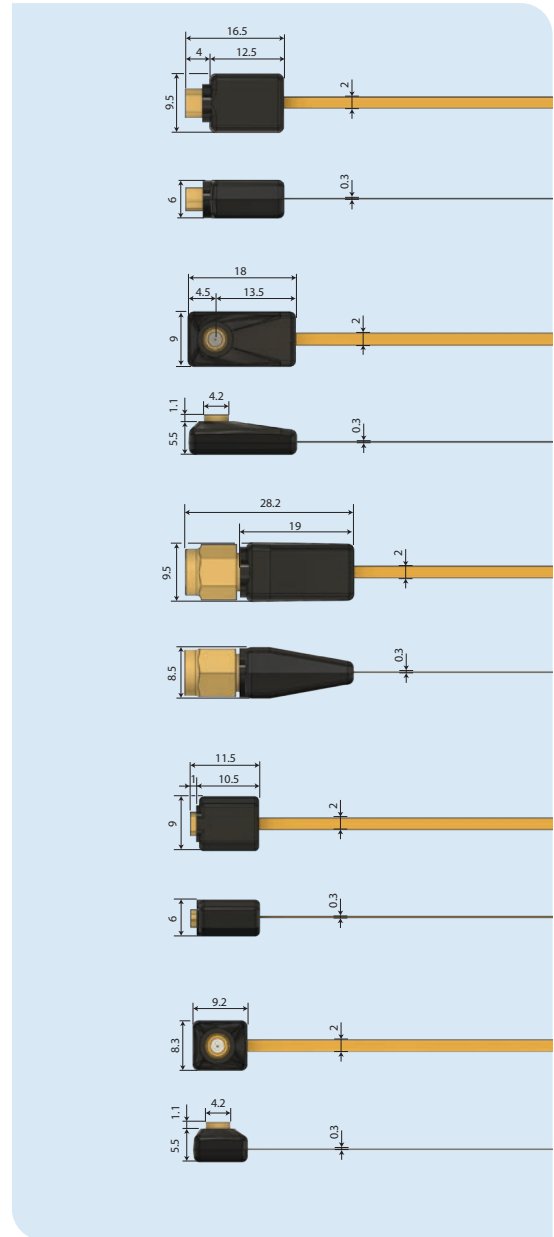
### Non-Magnetic






For customers with stringent demands on non-magnetic components in their setups we offer specialized non-magnetic products. The standard Cri/oFlex® products can, in most cases, already be considered low-magnetic and sufficient for most applications involving magnetic fields. For all materials used in our products please consult the respective datasheets, in case of the non-magnetic options, the goldplated brass is replaced for goldplated beryllium copper.

### Connectors

In the table below we show the available connector options and corresponding frequency bandwidths; ✓ readily available, ✗ under development.

Cri/oFlex® cables can be configured with different connectors at each end.



						
		Straight SMP	Straight SMA	Straight Mini-SMP	Right Angle SMP	Right Angle Compact SMP
Bandwidth options	0-6 GHz	✓	✓	✓	✓	✓
	0-12 GHz	✓	✓	✓	✓	✓
	0-18 GHz	✓	✓	✓	✓	✓
	0-20 GHz	✓	✗	✓	✗	✓
	0-26.5 GHz	✓	✗	✗	✗	✗