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WR-10 5G Communication Extender 75 - 110 GHz: **FCE-10-TR-0001**

Farran offers the FCE series of up/down converters for use as frequency extender communication test equipment.

The FCE-10-TR-0001 covers the 75 - 110 GHz band of interest for 5G Communications. It is a unique, dedicated Transmit/ Receive system for 5G millimeter-wave frequency range.

Key Facts:

- Full WR-10, 75 - 110 GHz band operation.
- Enhanced IF bandwidth for wideband modulation.
- Single electronically tunable module.
- Cost effective, reduces development and test time.
- External power and low noise amplifiers, as well as band-pass filters available.

Features

- Broad bandwidth measurements
- Low noise figure & good output power for high system dynamic range
- Compact and lightweight

Applications

- Frequency extenders for communication systems measurement
- 5G Backhaul Equipment Testing
- Antenna Testing
- 5G system chip measurement

"We are delighted to have released this product, that has been designed with Farran's extensive expertise in mmWave to the fore. Combined with our deep knowledge of up & down converter systems to work with industry leading test equipment, we expect the FCE product family to help our customers extend the range of their existing test equipment & meet the challenges that development of 5G presents".

Michael Crowley, Principal Engineer at Farran.

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Product Specification

System Specification	Unit	Min	Typ	Max
Upconversion				
System Operating Frequency	GHz	75	-	110
System Conversion Loss (SSB)	dB	-	TBC	-
Output Power P1dB	dBm	-	+6	-
IF Input Frequency	GHz	-	12	-
Downconversion				
System Operating Frequency	GHz	75	-	110
System Conversion Loss (SSB)	dB	-	TBC	-
Receiver Noise Figure	dB	-	10	-
IF Output Frequency	GHz	-	12	-
LO Input Details				
LO Input Frequency	GHz	9.375	-	13.75
LO Input Power	dBm	+7	-	+12

Test Port Interface	-	WR-10, IEEE 1785.2a Precision Style (UG-387/UM Compatible)
LO Connector	-	SMA 3.5 mm (F)
IF Connector	-	SMA 3.5 mm (F)
DC Power Requirements	-	12V/1A
Weight	kg	3.5
Dimensions (L x W x H)	-	170 x 105 x 60

Notes:
1. Output Power: High Power Amplifier available on request
2. System Conversion Loss: Low Noise Amplifier available on request
3. TBC: To Be Confirmed

SERVICES AVAILABLE

- Technical Support
- Installation and Setup
- Maintenance
- Application Support
- Hardware Support

For more information on any of our products or services please visit our website: www.farran.com

TECHNICAL SUPPORT

- Technical support provided directly by our knowledgeable and friendly engineers.
- Support for pre- and post-purchase: system configuration, installation and troubleshooting.

PRODUCT INSIGHTS

- For more product insights register at www.farran.com/customer
- Additional information: test data, CAD drawings and 3D models available.

WARRANTY

- Standard 3 year warranty.
- Up to 5 year warranty optional.

Specification Definitions

Nominal value (nom.) – ensured by design, not tested. **Measured value (min, max)** – expected and warranted product performance obtained from the actual measurements of product sample. **Non-traceable measured value (n. trc. meas.)** – expected product performance obtained from the actual measurements of a product sample by means of using Farran's own equipment and methods. Traceable only to Farran laboratory equipment. **Typical data (typ.)** – value that represents the product specification met over 90% of bandwidth or a mean value.
Specifications without limits – represent the warranted product performance; with values of no or a negligible deviation from the given value and as such have a secondary impact on the product performance.