

General

This converter platform is a broadband and versatile building block for E-band (71-76 and 81-86 GHz) applications. The platform is easily modified to customer requirements. It consists of one up- and one down-converter in a single unit. The up- and down-converter operate independently, and can thus be used in both frequency multiplexed and time multiplexed applications. The FC1003E/03 utilizes on-board LO synthesizers. Waveguide filters and diplexers are available as options.

Features

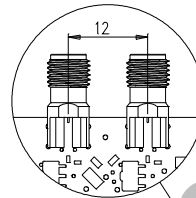
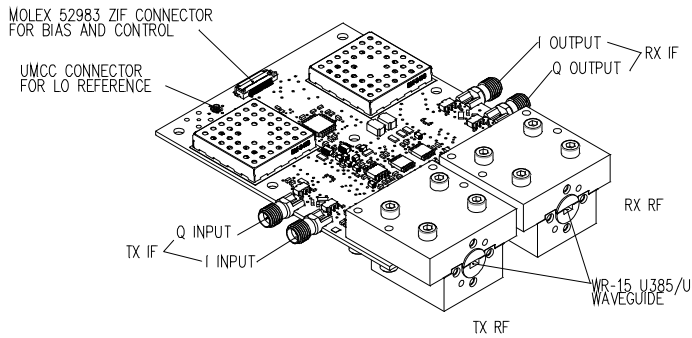
- 81-86 GHz TX frequency, 71-76 GHz and 81-86 GHz RX frequency allows for TDD or FDD operation
- Platform concept, easy to customize
- 0 to 10 GHz IF bandwidth
- Small size and weight
- Standard waveguide and SMA interfaces

The basic E-band platform possesses a very broad IF bandwidth, from 0 to 10.0 GHz. A set of two identical E-band modules can be used in a full duplex configuration by appropriate choice of LO signals for the up- and down-converter respectively. Even higher capacity can be achieved by pairing a 71-76 GHz and a 81-86 GHz TX unit together. The converter is controlled through a standard I2C interface.

Applications

- Point-to-point or multi-point radio
- Multi-Gbps wireless transfer
- Measurement systems
- Any application requiring a high-quality mm-wave signal source

Interfaces

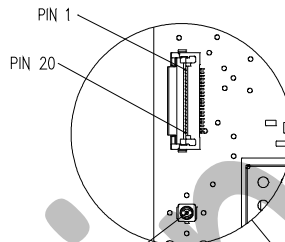


STANDARD SMA FEMALE
COAX CONNECTORS
50 OHM

SEE MANUAL FOR
INSTALLATION NOTE

FOR SINGLE PORT USE, TERMINATE
OTHER CONNECTOR IN 50 OHM

Pin #	Converter with synth
1	GND
2	VDD
3	VDD
4	VDD
5	VDD
6	GND
7	VSS
8	VSS
9	GND
10	VPP
11	VPP
12	GND
13	NC
14	NC
15	NC
16	NC
17	NC
18	I2C-SCL
19	GND
20	I2C-SDA



ULTRA MINIATURE COAX CONNECTOR
10 MHz REFERENCE SIGNAL FOR LOCAL
OSCILLATOR - 50 OHM

Signal	Description
NC	No connect
GND	Ground
VDD	+7V
VPP	+15V
VSS	-7V
I2C-SCL	I2C bus clock
I2C-SDA	I2C bus data

