

# Converters

## SatCom Downconverter, Ku-Band

### Model: MFC139



#### Features

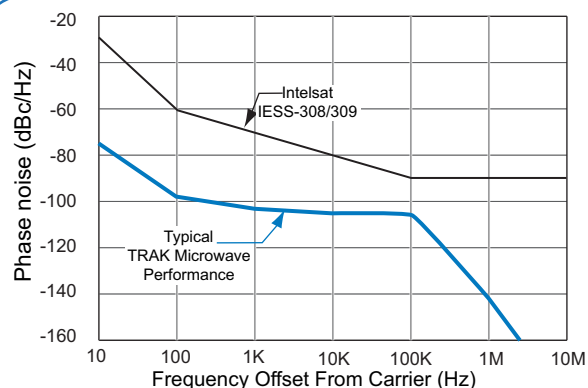
- Ideal for Mil-Satcom Applications
- Very Low Phase Noise
- Good Amplitude & Phase Response
- High Output Compression and IP3
- Summary Alarm
- 20 dB Gain Control, RS485



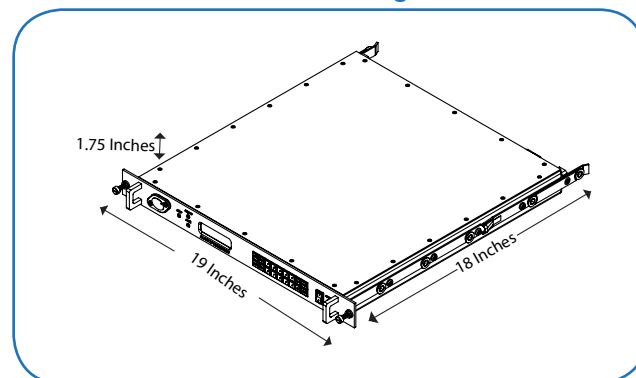
| Key Parameter               | Requirement        |
|-----------------------------|--------------------|
| <b>Bandwidth</b>            |                    |
| Input                       | 10.95 to 11.55 GHz |
|                             | 11.55 to 12.15 GHz |
|                             | 12.15 to 12.75 GHz |
| Output                      | .95 to 1.55 GHz    |
| Gain                        | 20 dB              |
| Manual Gain Control         | Set gain to 25 dB  |
| <b>Phase Noise (dBc/Hz)</b> |                    |
| 10 Hz                       | -70 dbc            |
| 100 Hz                      | - 90 dBc           |
| 1 K                         | - 100 dBc          |
| 10 K                        | - 102 dBc          |
| 100 K                       | - 102 dBc          |
| 1 M                         | - 138 dBc          |
| Noise Figure                | 16 dB              |

| Key Parameter           | Requirement             |
|-------------------------|-------------------------|
| IP3 – Two Tone Intermod | -60 dBc @ -25 dBm input |
| P1dB                    | 18 dBm                  |
| <b>Band Flatness</b>    |                         |
| Any 60 MHz              | +/- 0.25 dB             |
| Any 125 MHz             | +/- 0.5 dB              |
| 500 MHz Band            | +/- 1 dB                |
| <b>Phase Linearity</b>  |                         |
| Any 60 MHz              | +/- 0.1 Radian          |
| Any 125 MHz             | +/- 0.3 Radian          |
| <b>Spurious Output</b>  |                         |
| Signal Related          | < -70 dBc               |
| Signal Independent      | < -80 dBm               |
| Phase Errors            | < 30 deg / .2 Sec       |

#### Typical Phase Noise



#### Drawing



Specifications subject to change without notice.

**TRAK Microwave Corporation**

E-mail: [sales@trak.com](mailto:sales@trak.com) • [www.trak.com](http://www.trak.com)

Ph: 813-901-7200 • Fax: 813-901-7491

4726 Eisenhower Boulevard • Tampa, FL 33634-6391 USA

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