

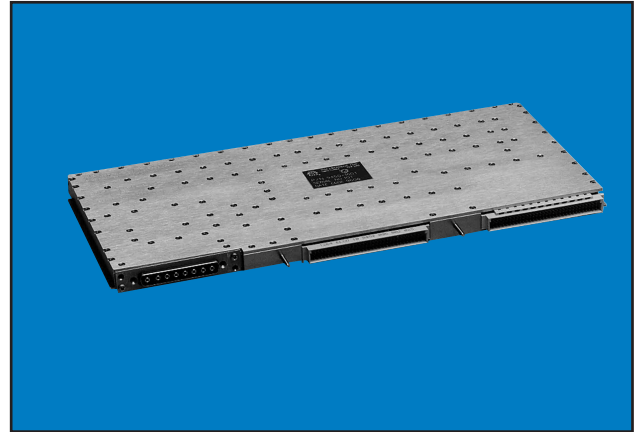
Multi-Function Assemblies

Multi-Mode Dual Channel Converter Assembly, 6 - 6.5 GHz

Model: MFC114

Features:

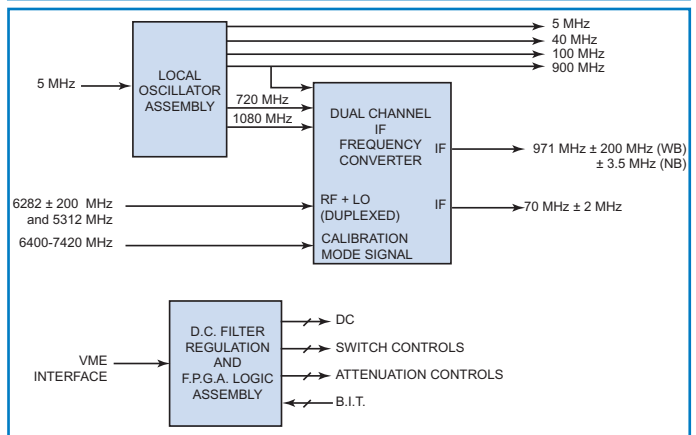
- ◆ Combines: MMIC Amplifiers and Transistor Multipliers
- ◆ Dual IF Outputs: 70 MHz and 970 MHz
- ◆ L.O. Frequency Generation: Five Tones
- ◆ Over 40 dB AGC Control
- ◆ Built-In-Test Functions
- ◆ Field Programmable
- ◆ VME Bus Interface
- ◆ Low Noise Design



| Electrical Specifications | |
|-----------------------------------|--|
| Reference Input | |
| Frequency: | 5 MHz |
| Power Level: | + 2.5 dBm ± 2 dB |
| Diplexed Inputs | |
| Frequency: RF | 6.1 - 6.5 GHz |
| LO | 5.1 GHz |
| Power Level: (RF) | - 40 dBm ± 25 dB |
| Calibration Mode Input | |
| Frequency: | 6.4 - 7.4 GHz |
| Power Level: | + 8.5 dBm ± 2.5 dB |
| First IF Output | |
| Frequency: | 70 ± 2 MHz |
| Power Level: ^{Note 1} | + 20 dBm, minimum |
| IF Gain: | 22 dB ± 1.5 dB |
| Harmonics: | - 20 dBc, maximum |
| Spurious: | - 50 dBc (in-band) |
| Second IF Output | |
| Frequency: ^{Note 2} (WB) | 970 ± 200 MHz |
| (NB) | 970 ± 3.5 MHz |
| Power Level: ^{Note 1} | + 20 dBm, minimum |
| IF Gain: ^{Note 3} | 42 ± 2 dB |
| IF Gain Control: | 0 to - 62 dB (2 dB steps) |
| Harmonics: | - 20 dBc, maximum |
| Spurious: | - 50 dBc (in-band) |
| Fixed LO Outputs | |
| Frequencies: | 5 MHz 900 MHz |
| Power Level: | + 10 dBm ± 2 dB |
| Harmonics: | - 35 dBc - 60 dBc |
| Spurious: | - 80 dBc - 60 dBc |
| ECL Outputs Freq.: | 40 MHz 100 MHz |

| General | |
|---------------------|--|
| Impedance: | 50 ohms |
| Load VSWR: | 1.5:1 |
| Tuning Control: | VME Bus Interface |
| BITE Scheme: | Fault Status ("1" = Fault) |
| DC Power (nominal): | + 12 V ± 5 % @ 1550 A + 5 V ± 5 % @ 250 mA - 12 V ± 5 % @ 235 mA |
| Power Consumption: | 22.7 W, nominal |

| Environmental Specifications | |
|--|-----------------------------|
| Operating Temperature: 0 to + 65 °C, baseplate | |
| Mechanical Specifications | |
| Size: | Single 9U x 160 mm VME card |
| Weight: | 5 lbs (2.3 kg), nominal |



- Note 1: Minimum output power @ 1 dB compression
 Note 2: The 970 MHz IF signal has two selectable bandwidths: wideband (WB) and narrowband (NB).
 Note 3: Referenced to 0 dB attenuation Specifications subject to change without notice.



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