



BRQ013

Millimetre-Wave Downconverter Assembly

The MDA is capable of processing pulsed and CW microwave signals in the 18-40GHz range to provide a common output for later processing. The MDA's primary function is to amplify signals in this frequency range and convert them to a 4-18GHz baseband output.

Built In Test (BITE) function is available to provide a go / no-go output result.

Applications

- EW Receivers
- Block Downconverters

Key Features

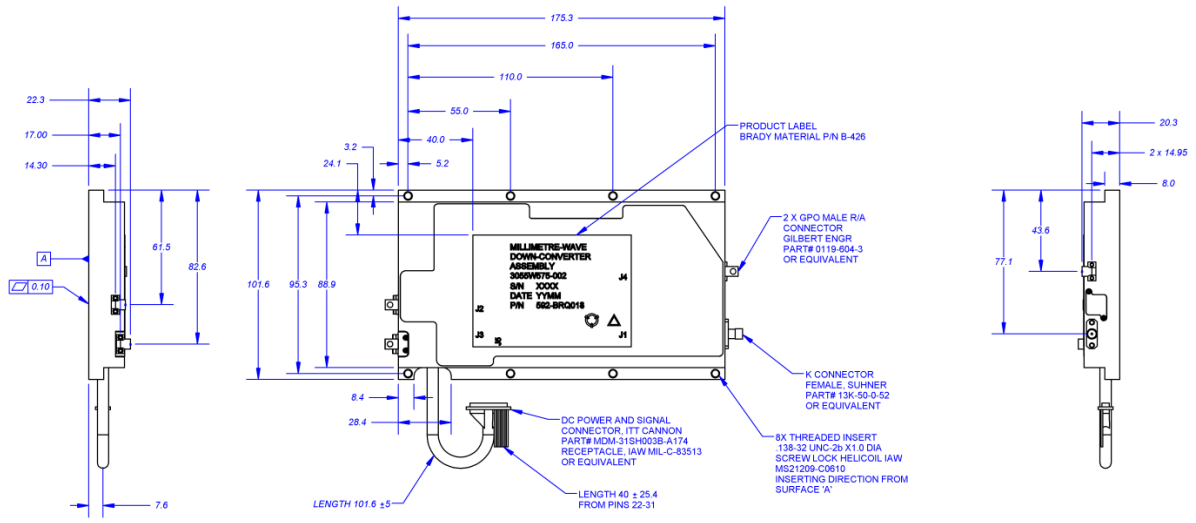
- 18-40GHz coverage in two bands
- Modular construction with high level of integration in each sub-assembly
- Amplifiers, downconverter, switched filters, LO sub-system and BITE in a single, compact package
- State-of-the-art technology

Specifications

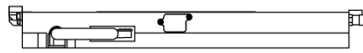
Input Frequency Range:	18-40GHz
Sub-bands:	
Band A:	Input 18-26GHz Output 7-15GHz
Band B:	Input 26-40GHz Output 4-18GHz
Out-of-band Rejection:	50dBc
Transmission Gain: J1 to J2:	27.75 ±3.75dB
In-band Ripple:	±2dB
Input P1dB:	18-21 GHz -19dBm 21-26 GHz -18dBm 26-30 GHz -21.5dBm 30-37 GHz -20dBm 37-40 GHz -18.5dBm
Noise Figure:	18-21 GHz 6.5dB 21-24 GHz 6.6dB 24-26 GHz 7.4dB 26-30 GHz 7.6dB 30-35 GHz 9.0dB 35-40 GHz 9.8dB
Reference Input Frequency:	100MHz or 1GHz (define)
Reference Power:	0 to +6dBm, 100MHz version -17 to 11dBm, 1GHz version
BITE Path Gain (J4 to J2):	2-16dB
Internal BITE Output Freq:	11GHz
Power Supply:	+12V ±5%: 780mA +8V ±5%: 1850mA +5V ±5%: 850mA -12V ±5%: 300mA
Control Signals:	TTL levels
Digital Attenuator Control:	4 bit, 15dB maximum range
Operating & Storage Temp:	-54°C to +85°C base plate
Humidity:	95% condensing
Vibration:	17.5gRMS 10-2000Hz random
Shock:	30g, 11 milliseconds, half-sine pulse
Weight:	1kg maximum



Micreo
one step ahead

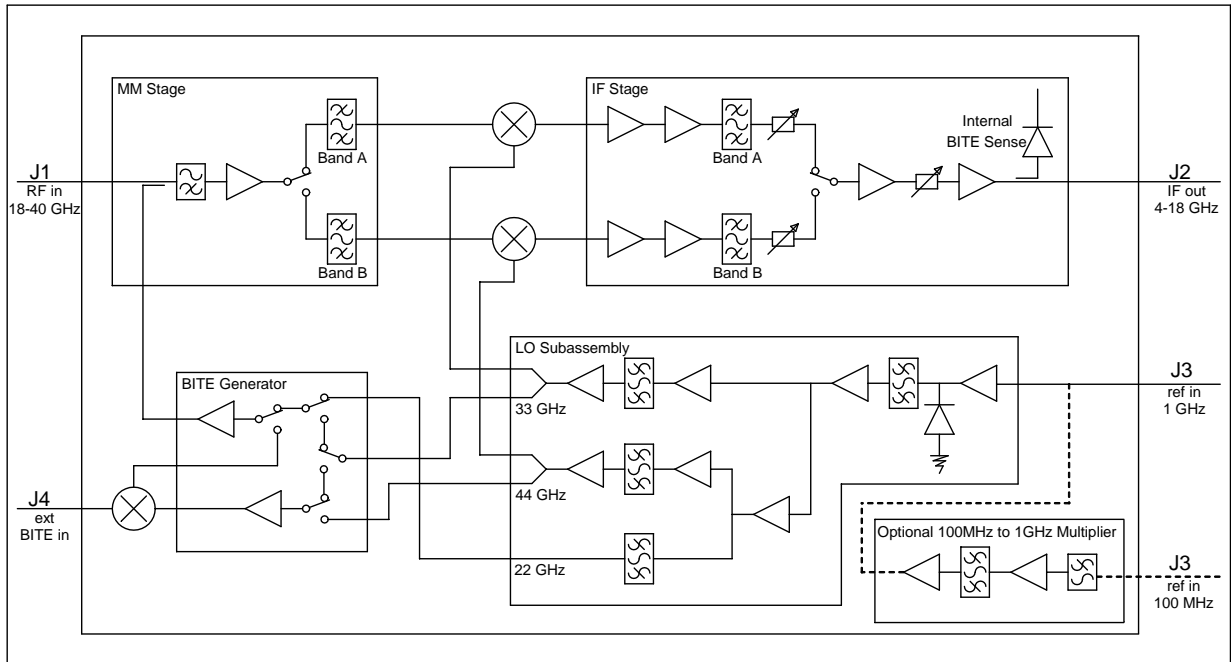


Block Diagram



NOTES:

1. INFORMATION FOR DESIGNATION ACCORDING TO SPEC.
2. WEIGHT: 650 ± 100g
3. HEAT DISSIPATION 25 WATT MAX.
4. EXTERNAL FINISH IS PASSIVATE USING CHROMATE CONVERSION (ALDYNE) TREATMENT PER MIL-C-5541 CLASS 1A ON ALL SURFACES. PRIMER TO BE ADDED ON THE INDICATED SURFACES AFTER CHROMATE CONVERSION.
5. CONNECTOR DESIGNATORS, CUSTOMER PART NUMBER AND THE PRODUCT DETAILS ARE PRINTED ON THE BRADY PRODUCT LABEL.



Outline Drawing



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L3 Micreo
7 Hi-Tech Court,
Brisbane Technology Park,
Eight Mile Plains, QLD 4113
Australia

T: +61 7 3340 6200
F: +61 7 3340 6201
E: sales@micreo.com
www.micreo.com
ABN 11 098 350 479

Ordering information:

592-BRQ013

Millimetre-Wave
Downconverter Assembly

Please contact us for more information.

L3 Micreo reserves the right to amend specifications in the light of continuing development.
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