

# BSR001

## High Frequency Microwave Receiver Integrated Circuit

### Applications

- EW Receiver Front Ends
- General purpose amplifier / down convertor

### Key Features

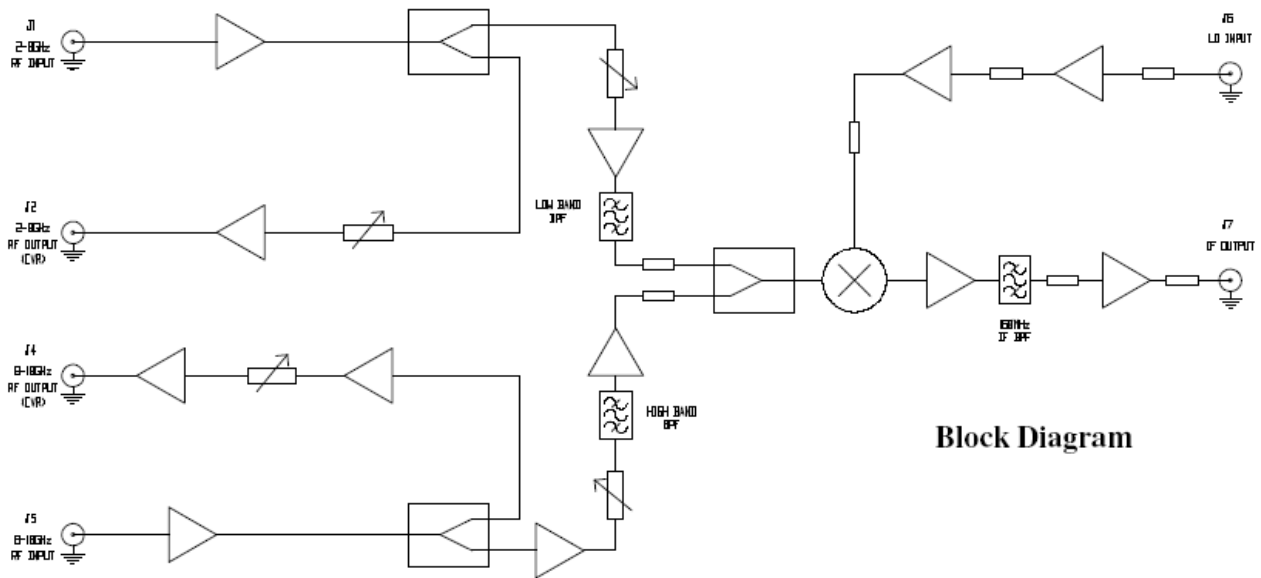
- Wideband response from 2GHz to 18GHz in two bands
- CVR and Super-heterodyne receiver paths
- Flat gain
- Compact size

### Specifications

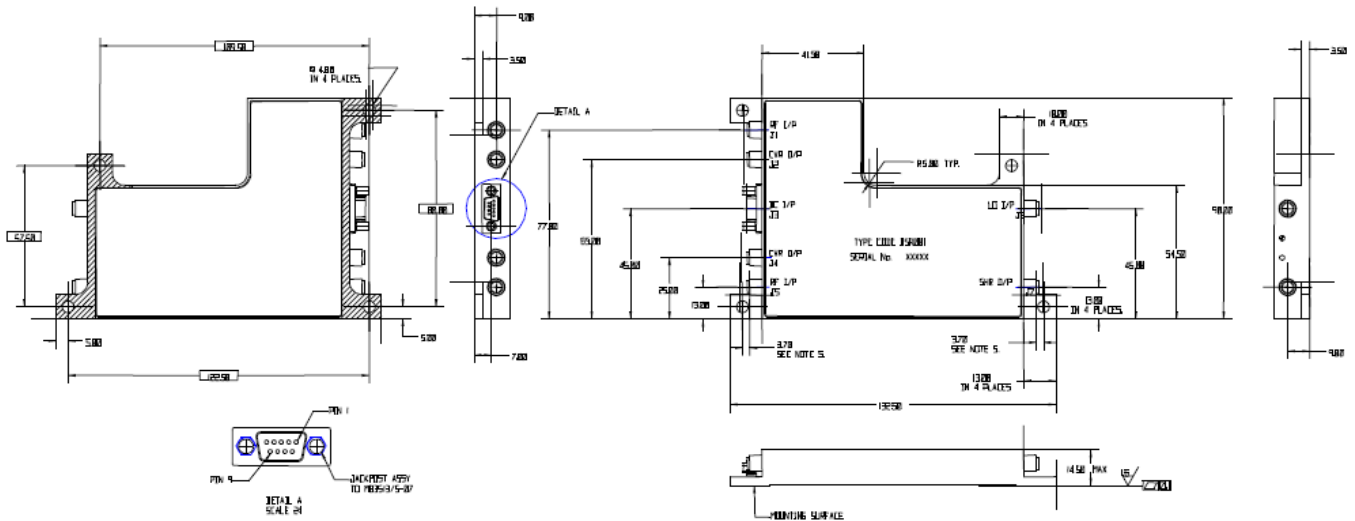
RF Input Range:	2-8GHz and 8-18GHz
Input and Output VSWR:	2:1 maximum
CVR Paths:	
Gain: J1-J2; 2-8GHz path	19dB-22.5dB, ±1.25dB ripple
J5-J4; 8-18GHz path	20dB-23.5dB, ±1.25dB ripple
Noise Figure:	5.5dB maximum
P1dB:	+17dBm minimum
Inter Channel Isolation:	60dB minimum (except in diplexer cross-over region)
Super-Heterodyne Paths:	
Gain:	33dB-38dB; ±1dB unit to unit tracking
Noise Figure:	7.5dB maximum (except in diplexer cross-over region)
P1dB:	+7dBm minimum
IF Frequency:	160MHz
IF Rejection @ 148.5 & 171.5MHz	2.5dB-3.5dB
at 130 and 190MHz	30dB minimum
DC-110MHz & 215MHz to 36GHz	65dB minimum
IF Filter Type:	Gaussian to 6dB architecture
DC Supply:	10V, 1.2A maximum
Operating Temp Range:	- 54°C to +85°C
Operating Environment:	Uninhabited Fighter



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Block Diagram



PIN NUMBER	SIGNAL NAME
1	VDD
2	GND
3	-
4	-
5	-
6	VDD
7	GND
8	-
9	-

PORT	BEST FUNCTION	CONNECTOR
J1	INPUT FREQUENCY 2 TO 8GHz	SHF PERNALE
J2	INPUT FREQUENCY 8 TO 18GHz	SHF PERNALE
J3	SUPPLY VOLTAGE	SHF TYPE
J4	INPUT FREQUENCY 2 TO 8GHz	SHF PERNALE
J5	INPUT FREQUENCY 8 TO 18GHz	SHF PERNALE
J6	LO INPUT FREQUENCY 8 TO 18GHz	SHF PERNALE
J7	RF OUTPUT FREQUENCY 2 TO 8GHz	SHF PERNALE

NOTES

- FINISH A: FINISH A: PAINT GLOSS BLACK POLYURETHANE PER MIL-C-26363 TYPE I. DO NOT PAINT CONNECTORS OR MOUNTING SURFACE.
- FINISH B: FINISH B: PAINT GLOSS BLACK POLYURETHANE PER MIL-C-26363 TYPE I. DO NOT PAINT CONNECTORS OR MOUNTING SURFACE.
- FINISH C: FINISH C: PAINT GLOSS BLACK POLYURETHANE PER MIL-C-26363 TYPE I. DO NOT PAINT CONNECTORS OR MOUNTING SURFACE.
- HEAT DISSIPATION: 0.6W.
- UNIT PAGES: 1/000.
- ALL DIMENSIONS TO BE APPLIED WITH GREY PER MIL-E-14876 TYPE I. DIMENSION FROM MOUNTING HOLE TO CONNECTOR REFERENCE PLANE.
- CONNECTOR J6 TO BE 9.14MM DIAMETER SOCKET PER MIL-C-26363.

Outline Drawing  
(Dimensions in mm)



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High Frequency Microwave  
Receiver Integrated Circuit

Please contact us for more information.

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