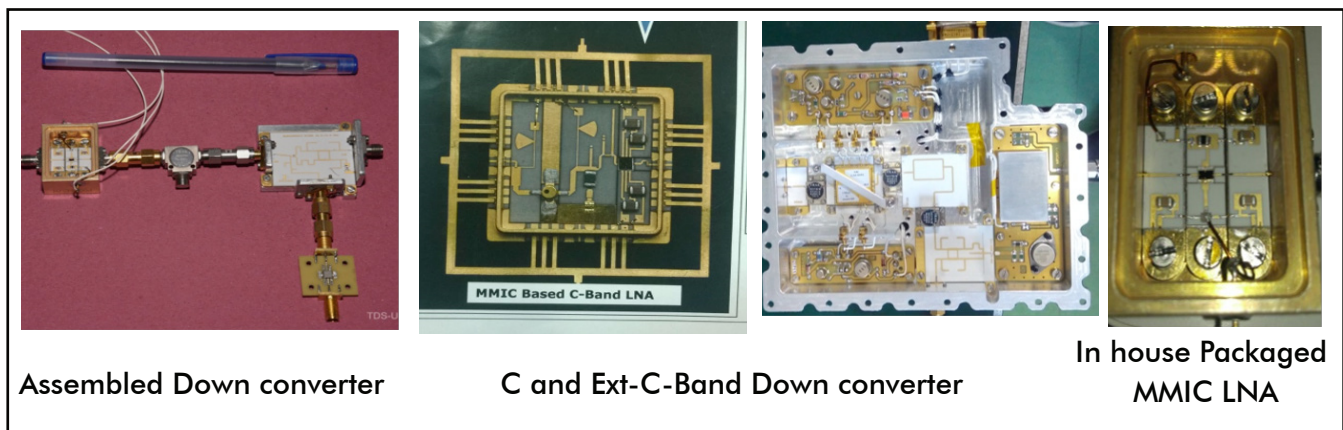


C-Band, Extended-C Band and Ku band Down converter

U R Rao Satellite Centre (URSC) of Indian Space Research Organisation (ISRO) has developed C-Band, Extended-C Band and Ku band Down converter to change the frequency of an electromagnetic signal while preserving every other characteristic such as phase and amplitude of the initial signal.



Salient Features

- ✦ Down-converters available across C, Ext-C and Ku band.
- ✦ MMIC based LNA implemented to achieve low noise figure.
- ✦ Low local oscillator drive power.
- ✦ Built in bias sequence circuit.

Major Specifications

Parameter	C, Ext-C Band	Ku-Band
Frequency Range	5.8 GHz – 7.0 GHz	12.75 -13.25 GHz
Conversion	Single conversion without inversion	
RF Input Level	-50 dBm Typical	
RF and IF Impedance	50 Ohm	
Noise figure	2.3 dB	2.5 dB
LO drive level	4 dBm	4-dBm
LO Frequency	5.604 GHz – 6.768 GHz	6.104 GHz- 6.346 GHz
IF output frequency	196 MHz – 232 MHz	541 MHz – 556 MHz
Gain	40 dB	12 dB
Gain flatness	+/- 1 dB	+/- 0.5 dB
Image rejection	Better than 30 dB	Better than 25 dB
RF input / IF output	SMA type	WR62/SMA I/P & SMA O/P
Operating Temperature	-30 deg to +60 deg	
Group delay	Linear	
Input and Output return loss	20 dB minimum	
Power consumption	0.4 W	0.5 W

Technology Transfer

URSC/ISRO offers to transfer this technology of C-Band, Extended-C Band and Ku band Down converter to industries in India with adequate experience and facilities. Industries interested in obtaining know how may write giving details of their present activities, infrastructure and facilities.

Technology Transfer & Industry Coordination Division (TTID),
Programme Planning and Evaluation Group (PPEG),

📍 U R Rao Satellite Centre (URSC), ISRO, HAL Airport Road,
Vimanapura Post, Bangalore – 560 017.

✉ Email-id: tt-icd@ursc.gov.in

☎ Fax No: 080-25205261

🌐 <https://www.ursc.gov.in/industry/index.jsp>