

## \* Active parts

### Satellite Low noise block down Converter (LNB)



#### ● Features

- ▶ Input Frequency Range 7.25~7.75GHz
- ▶ Output Frequency Range 950~1450MHz
- ▶ DC +12 ~ 24V

#### \* Applications

- ▶ Satellite Receivers

Parameter	Specification
<b>Input return loss</b>	$\geq 9.5 \text{ dB}$
<b>Output return loss</b>	$\geq 14 \text{ dB}$
<b>C-band(7~8GHz) filtering</b>	55 dB
<b>LO drift over temp.</b>	Internal Ref. : $\pm 10 \text{ KHz}$ max. -62 dBc/Hz @ 100 Hz -72 dBc/Hz @ 1 KHz -82 dBc/Hz @ 10 KHz -92 dBc/Hz @ 100 KHz -102 dBc/Hz @ 1.0 MHz -112 dBc/Hz @ 10 MHz
<b>Maximum phase noise(SSB) Internal Ref. / External Ref.</b>	
<b>OP1dB</b>	+10 dBm
<b>2 tone IMD</b>	40 dBc @ tone 0 dBm
<b>OIP3</b>	-20 dBm
Maximum Tx Band(7.9~8.4GHz) signal level(-30dBm) that will not saturation the LNB and cause any N/F degradation.	
<b>Gain</b>	60 dB typ (55 dB ~ 65 dB) $\leq 1 \text{ dB p-p}$ over 36 MHz $\leq 3 \text{ dB p-p}$ over 120 MHz $\leq 4 \text{ dB p-p}$ over 500 MHz
<b>Gain variation over temp.</b>	
<b>Spurious</b>	<b>Receive band</b> -65 dBm max. (950~1450MHz)
	<b>Out of band</b> -50 dBm max. (200~2200MHz)
	<b>Others</b> -25 dBm max. (0.2~20GHz, except nLO)
<b>LO leakage</b>	<b>IF output</b> -30 dBm max.
	<b>RF input</b> -45 dBm max.
<b>Image rejection</b> 45 dB min., 60 dB typ.	
<b>Noise Figure (N/F)</b> 0.6 dB max @ 23°C (With SMA to WR-112 waveguide adapter)	
<b>DC current</b> 300 mA max.	