



Repeater block x-band



Repeater Block X-band is used for amplifying of weak signals from two antennas. The gain is carried out by two blocks of amplifiers and bandpass filters. Repeater Block X-band is applied in GSM / MVDS / MITRIS systems

This Repeater Block is Low-Noise Receiver Amplifier (LNA) which is used for amplifying of weak X-band signals.

Signal gain is carried out by two blocks of amplifiers and bandpass filters – amplifying lines. These amplifying lines are connected to the corresponding branches of ferrite circulators, as a result forming diplexers. Diplexers divide by frequency the received signals from both inputs. The first block of amplifiers and bandpass filters amplifies the signal with a center frequency of 7.839 GHz, and the second block – with a center frequency of 8.150 GHz. These amplifying lines with inputs / outputs are connected to the corresponding branches of the ferrite circulators. Circular inputs are connected to the strip / waveguide transitions of WR112 waveguides. Their flanges are the inputs / outputs of the Repeater Block.

There are strip / waveguide adaptors at the Repeater Block inputs / outputs, their waveguide flanges are used for connecting the low-noise amplifier module to the antennas. The voltage of the Repeater Block is supplied via PC4 type connector.

KEY FEATURES:

- Compact sizes
- Wide supply voltage range: +15...+30 VDC
- High efficiency – supply current is just 300 mA (max)
- Output Power @P1dB: 23 dBm
- Waveguide flanges: WR-112
- 1st center frequency of 7.839 GHz and 2d center frequency of 8.150 GHz (as optional you may request the frequency from X-band)
- 40 MHz band for center frequency
- 35 dB gain (not less)

Parameter	Value
Frequency ranges:	
amplifier 1	7.839 GHz (with bandwidth 40 MHz)
amplifier 2	8.150 GHz (with bandwidth 40 MHz)
Gain of amplifiers 1 and 2, dB, not less	35
Noise figure of amplifiers 1 and 2, dB, not more	5.0
Output Power @P1dB, dBm	23
Output Power of amplifiers 1 and 2, dBm at level IMD3 – 45dBc, not less	+15...16
Gain flatness over frequency range	

(amplifiers 1 and 2), dB, not less	+/- 0.6
Input/output, not more	1.5
Input/output interfaces	Waveguide flanges WR-112
Return loss at Repeater Block inputs/outputs, not more	15 dB
Connectors for supply voltage	PC4
Supply voltage, V	+15...+30 VDC
Supply current, mA	300 mA max
Operating temperature	From -30 to +60°C
Operating humidity	from 0% to 95%
Dimensions (W x H x D)	134 x 47.9 x 178.8
Weight, kg	up to 3 kg

Taking into consideration that we (ROKS PrJSC) are developer and system integrator, also do not stop on our technical growth and improvement, know that view of all our devices and equipment including their technical parameters may be different from pictures presented on website and parameters listed on each device webpage.

Note! *All details customer has to confirm in advance during ordering and before payment. Those parameters that were not specified and / or were not agreed while ordering will be implemented as basic at the discretion of the manufacturer. Each our customer has 1.5 year warranty and 7 year aftersales support for whole range of our products.*