



BSR75 CHARACTERISTICS

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1.1	17/08/09	Javier Córdova	Changes in emission designators, clause 1.

DOCUMENT APPROVAL

ACTIVITY	NAME	DATE	SIGNATURE
Prepared			
Revised Project Manager			
Approved R&D Director			



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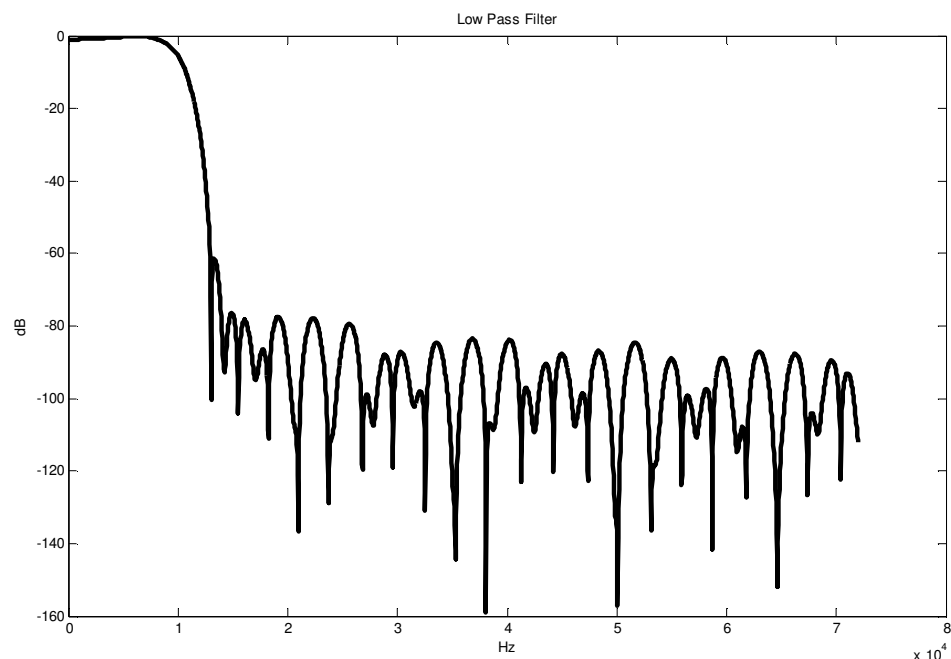
1. BSR75 TECHNICAL CHARACTERISTICS

Functional characteristics:

- Frequency bands: 380-400, 410-430, 450-470, 806-870 MHz.
- Transmit offset frequency: 45MHz for 806-870 MHz band; any for other frequency bands.
- Channel spacing: 6.25 KHz, 12.5 KHz or 25 KHz.
- Time Division Multiple Access (TDMA): 4 physical channel per carrier.
- Modulation: $\pi/4$ -DQPSK.
- Emissions Designators: 20K0D7W, 20K0D7E, 20K0D7D.
- Data bit rate: 36 Kbits/s.
- Ethernet interface: IEEE 802.3u,x.
- BSR75 is hot swap as a unit, but individual modules (RPS75, RPA75, RTX75, RRX, BSYNC, RCPU) are not.

Electrical characteristics:

- Nominal voltage: 26,4 Vdc (21.1 – 31.7 Vdc).
- Consumption: 500 W maximum.
- Transmitter:
 - RF Output Power: 75 W (+48.75 dBm) and from 40 W to 0.6 W in 2 dB steps.
 - Transmitter Frequency Range: 380 - 400, 410 - 430, 450 - 470, 851 - 870 MHz.
 - Frequency Accuracy: ± 0.1 ppm.
 - Spurious Emissions: < -70 dBc.
 - Adjacent Channel Power (ACP) Ratio: > 60 dB.
 - Inter-modulation attenuation: > 40 dB.
 - Modulation Fidelity (Digital): $< 5\%$.
 - Audio low pass filter response:





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- Receiver:
 - Receiver Frequency Range: 380 - 400, 410 - 430, 450 - 470, 806 - 825 MHz.
 - Sensitivity: < -115 dBm (0.4 uV).
 - Faded Sensitivity: < -106 dBm.
 - Selectivity: > 45 dB.
 - Co-Channel Rejection: < 19 dB.
 - Spurious response rejection: > 67 dB.
 - Intermodulation response rejection: > 65 dB.
 - Unwanted conducted emissions: < -57 dBm.

Data rate:

- Ethernet interface: bandwidth for dimensioning WAN link between Master Site and Base Station Site: 40 Kbps.
- Ethernet interface: bandwidth for dimensioning Base Station Site LAN: 60 Kbps.

Environmental characteristics:

- Operating Temperature Range: -30°C to +60°C (-22°F to +140°F).
- Storage Temperature Range: -40°C to +85°C (-40°F to +185°F).
- Humidity: 0 to 90% RH @ 50°C (122°F).

Mechanical characteristics:

- Dimensions (Length x Height x Width): 379mm x 133mm(3U) x 483mm.
- Weight: 10250 gr. (10500 gr. with BSYNC).
- BSR75 is assembled in a 19"-wide 3U-high rack.