



LF to UHF range of Prefiltered RF Preamplifiers

User manual. Rev 05
May 2021



From 100kHz to 500MHz range of thirty five Prefiltered, Very Low Noise, High IP3 preamplifiers.

For general purpose use such as Antenna signal booster, Instrumentation and IF Buffer for SDR radios, applications.

Featuring Amplifier By-Pass function when the toggle switch is set to amplifier OFF position.

Range of high performance Pre-Filtered RF Preamplifiers incorporating a 7th order Elliptic Low Pas Filter prior a high IP3, low noise amplifier. High IP3 is an important feature denoting capability to handle strong signals without distortion.

Suitable for a wide range of purposes in applications such as IF buffer for SDRradios, signal booster for radio receivers, laboratory measurement, signal generation, local oscillator buffer, transmission driver, etc.

Featuring Amplifier By-Passing function when the toggle switch is set to amplifier OFF position.

LPF available Fc range of frequencies:

- 100kHz	- 900kHz	- 3.0MHz	- 9.0MHz	- 30.0MHz	- 90MHz	- 250MHz
- 300kHz	- 1.0MHz	- 4.2MHz	- 10.0MHz	- 45.0MHz	- 100MHz	- 300MHz
- 500kHz	- 1.3MHz	- 4.5MHz	- 15.0MHz	- 60.0MHz	- 150MHz	- 400MHz
- 600kHz	- 1.5MHz	- 5.0MHz	- 17.0MHz	- 70.0MHz	- 200MHz	- 500MHz
- 620kHz	- 2.0MHz	- 6.0MHz	- 20.0MHz	- 88.0MHz	- 220MHz	
- 800kHz						

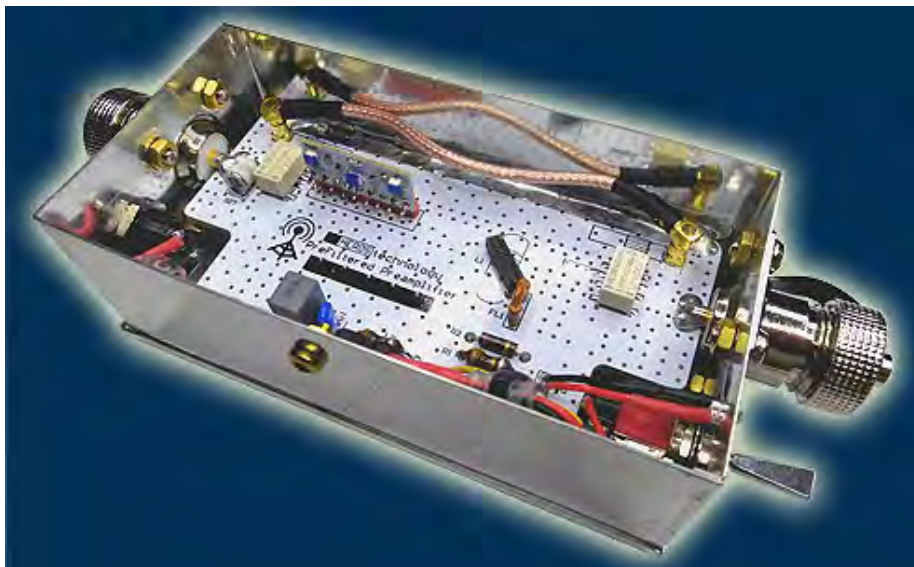


Depending on the working frequency technical specs are as follows:

Range from 100kHz to 45MHz.

Low Noise, High IP3 amplifier based on Mini-Circuits Gali-74+, a MMIC device manufactured using InGaP HBT technology.

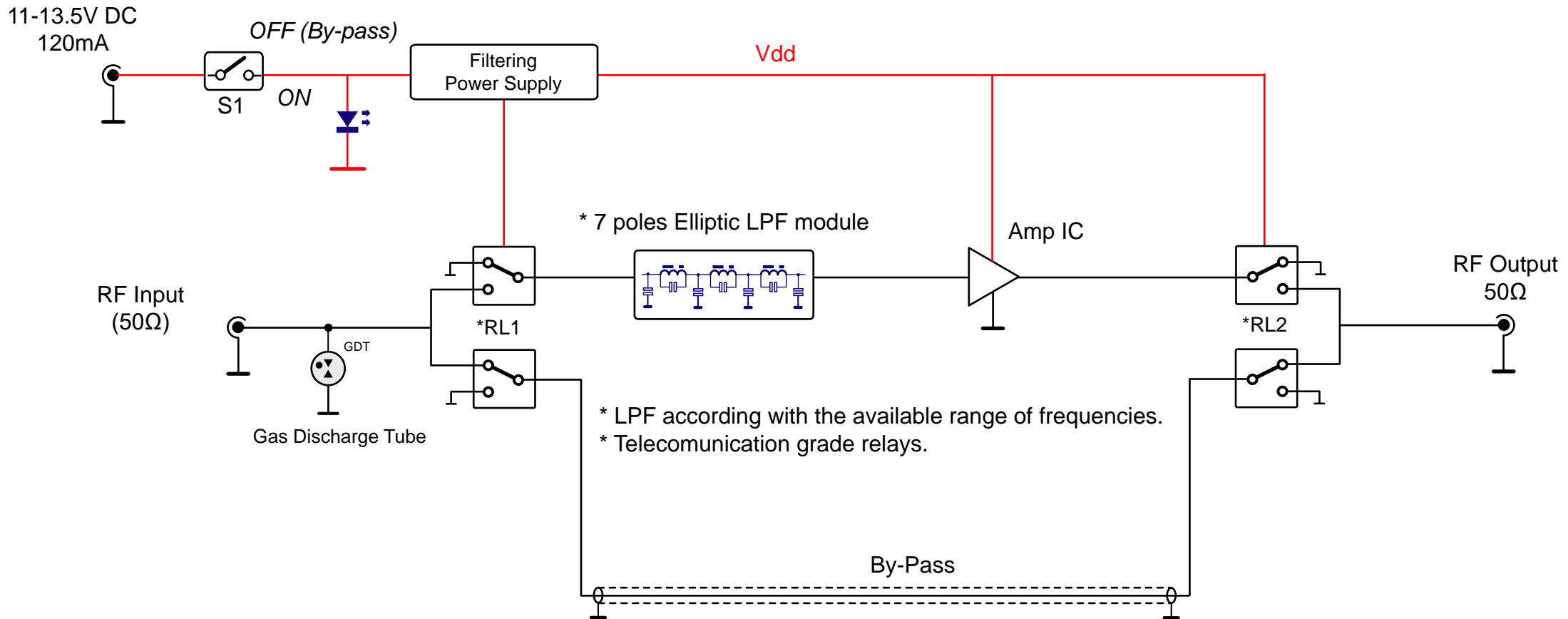
- Input/Output impedance: 50 Ohms.
- Input power: +10dBm (10mW) ABSOLUTE MAXIMUM.
- Antenna surge suppression: Gas discharge tube on Input port.
- Input Low Pass Filter: Passive, 7th order Elliptic of choice..
- Gain: 25dB
- IP3: 38dB
- Noise figure: 2.7dB.
- High isolation, very low insertion loss < 0.3dB on by-pass mode.
- Power supply circuitry includes protection and EMI rejection.
- Amplifier ON-OFF/By-pass functions toggle switch.
- In OFF state the preamplifier is by-passed.
- 3mm LED signaling ON state.
- Power: 12V DC/100mA.
- Connectors: BNC, N, SO-239, SMA or combined types customized versions are available. Please ask.
- Case Size: 55x111x30mm (2.16x4.37x1.18in) ; Only for SO239 connectors case size is: 55x111x40mm (2.16x4.37x1.57in)
- Coaxial cable tails and EM shielded power supply cable provided.



Range from 60MHz to 500MHz

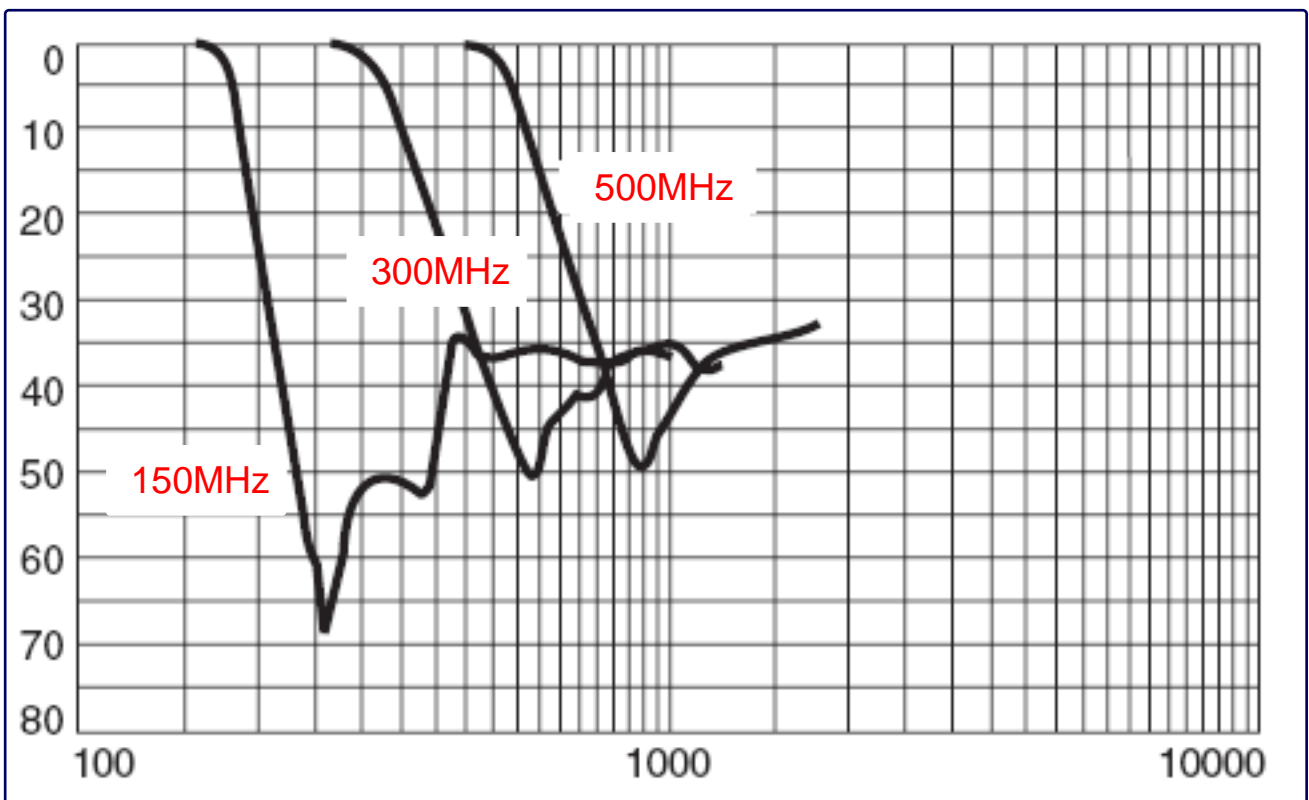
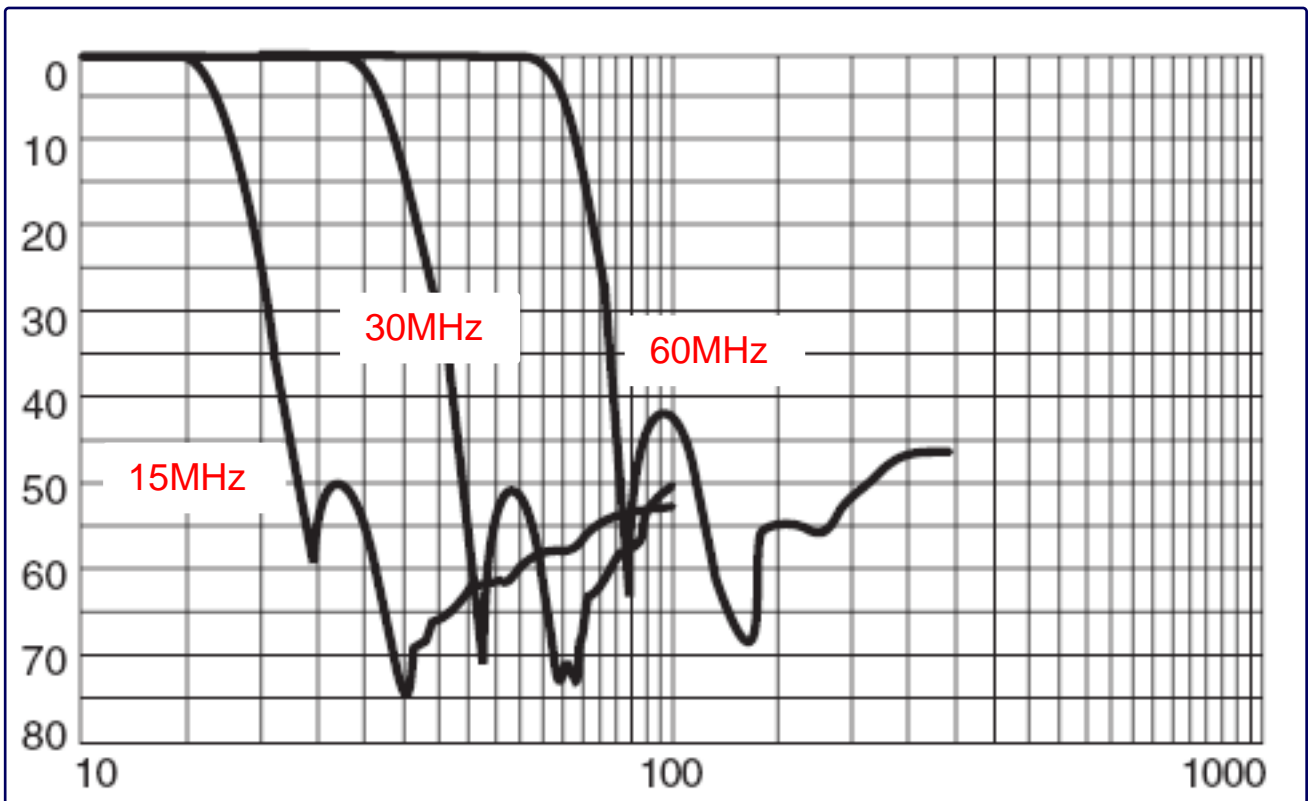
Very Low Noise, Ultra High IP3 amplifier, Minicircuits PGA-103+ MMIC device manufactured using E-PHEMT technology.

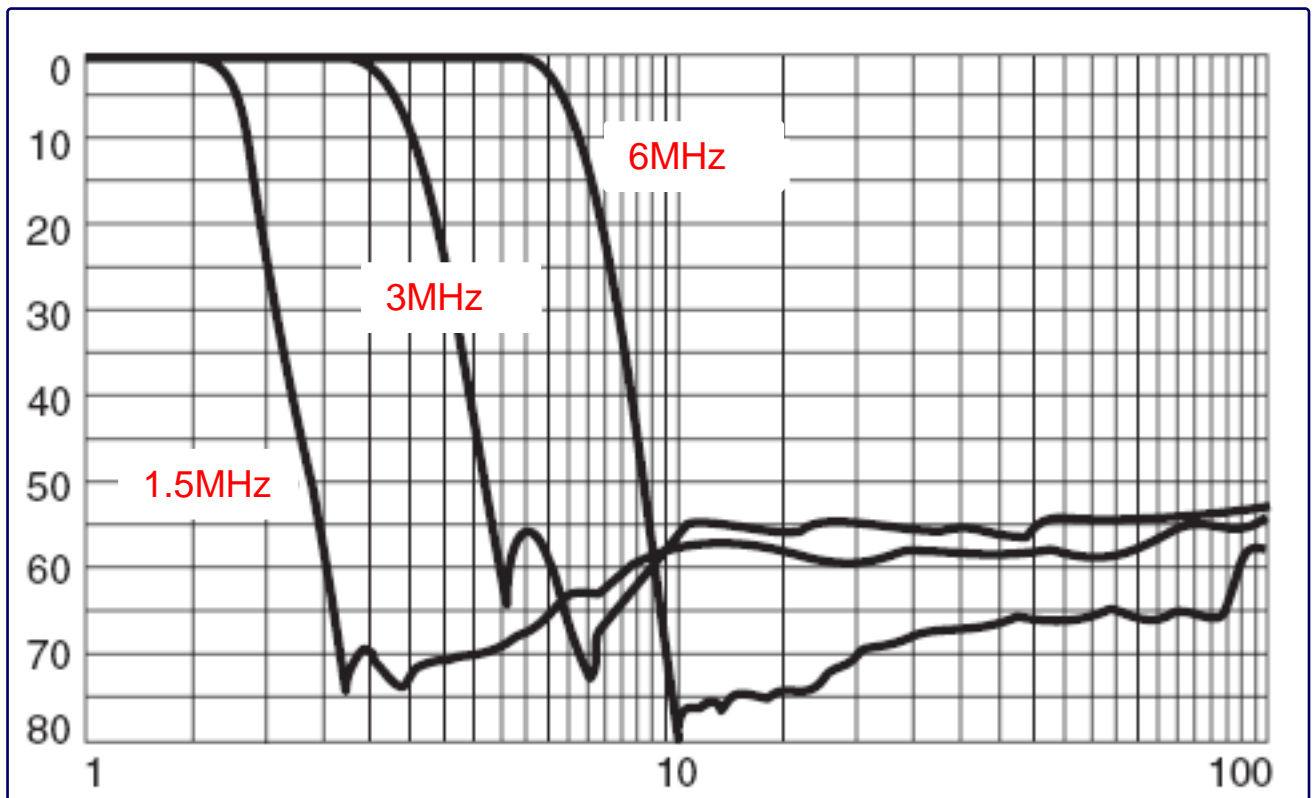
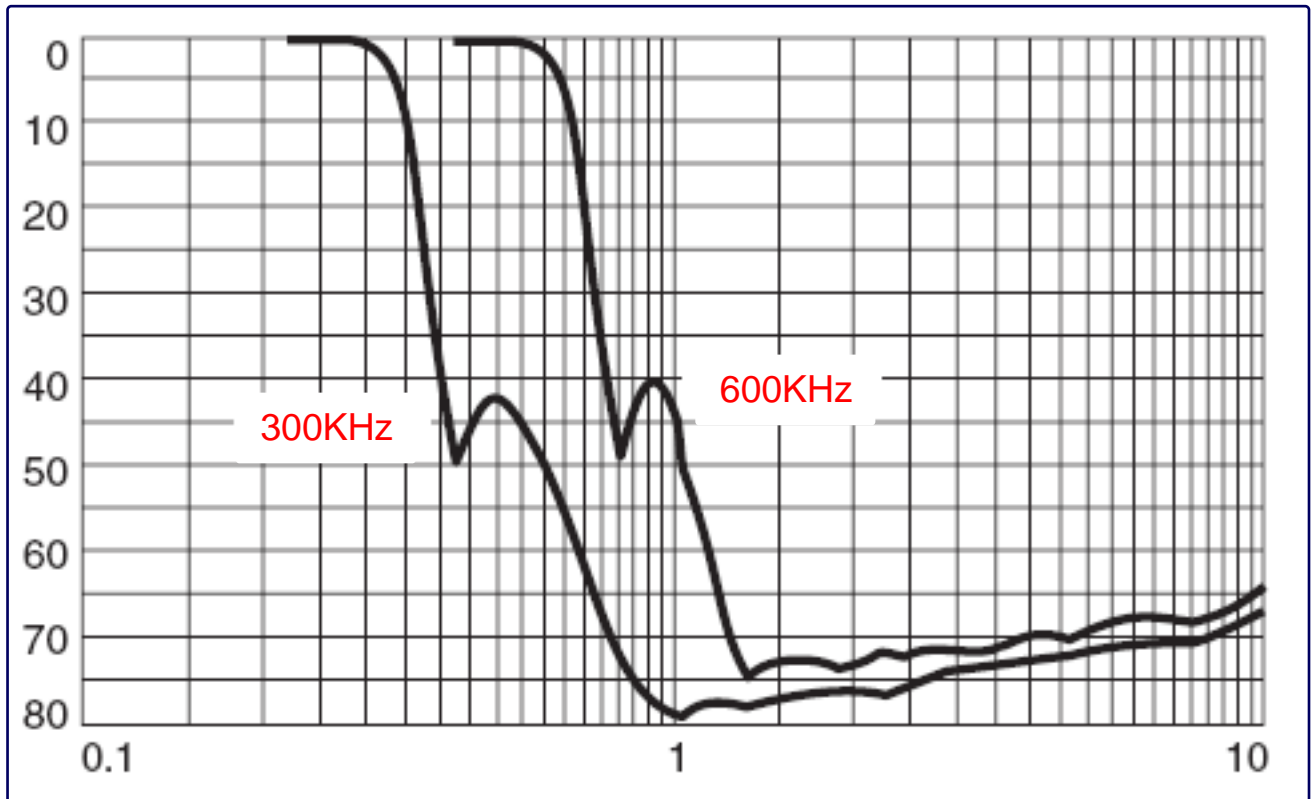
- Input/Output ports impedance: 50 Ω
- Input power CW: +20dBm (100mW) ABSOLUTE MAXIMUM.
- Input port surge suppression: Gas discharge tube.
- Input Low Pass Filter: Passive, 7th order Elliptic of choice.
- Gain: 25dB @ 150MHz; 22dB @ 500MHz.
- Output IP3: 37dBm @ 150MHz; 40dBm @ 500MHz,
- Noise figure: 0.5dB typ. 50MHz - 500MHz.
- Reverse Isolation: 25dB
- Power supply circuitry includes protection and EMI rejection.
- Amplifier ON-OFF/By-pass functions toggle switch.
- In OFF state the preamplifier is by-passed.
- 3mm LED signaling ON state.
- Power: 12V DC/150mA.
- Connectors: BNC, N, SO-239, SMA or combined types customized versions are available. Please ask.
- Case Size: 55x111x30mm (2.16x4.37x1.18in) ; Only for SO239 connectors case size is: 55x111x40mm (2.16x4.37x1.57in)
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- 600kHz - 1.5MHz - 5.0MHz - 17.0MHz - 70.0MHz - 200MHz - 500MHz
- 620kHz - 2.0MHz - 6.0MHz - 20.0MHz - 88.0MHz - 220MHz
- 800kHz







NOTES:

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