



## Prefiltered RF Preamplifier

User manual. Rev 03  
October 2018



From 300kHz to 500MHz range of thirty four Pre-Filtered, 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 range of frequencies**

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

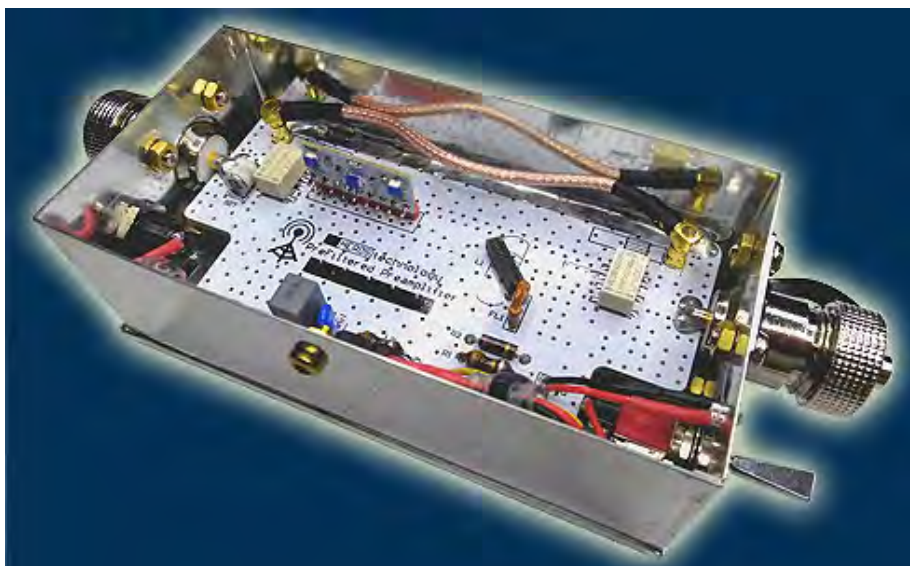


Depending on the working frequency range technical features are as follows:

LF-HF working frequency range preamplifier (300kHz 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 max.
- Antenna surge suppression: Gas discharge tube on Input port.
- Passive, 7th order, Elliptic Low pass filter.
- Gain: 25dB
- IP3: 38dB
- Noise figure: 2.7dB.
- High isolation, very low insertion loss set of RF signal relays.
- Power supply circuitry includes protection and EMI decoupling.
- Amplifier ON-OFF/By-pass functions switch.
- In OFF state the unit is by-passed.
- 3mm LED signaling ON state.
- Power: 11V-15V DC/120mA.
- Size: 55x111x40mm (2.16x4.37x1.57in)
- Coaxial cable tails and power cable provided.
- Connectors: BNC standard; N, SMA or combined types available.



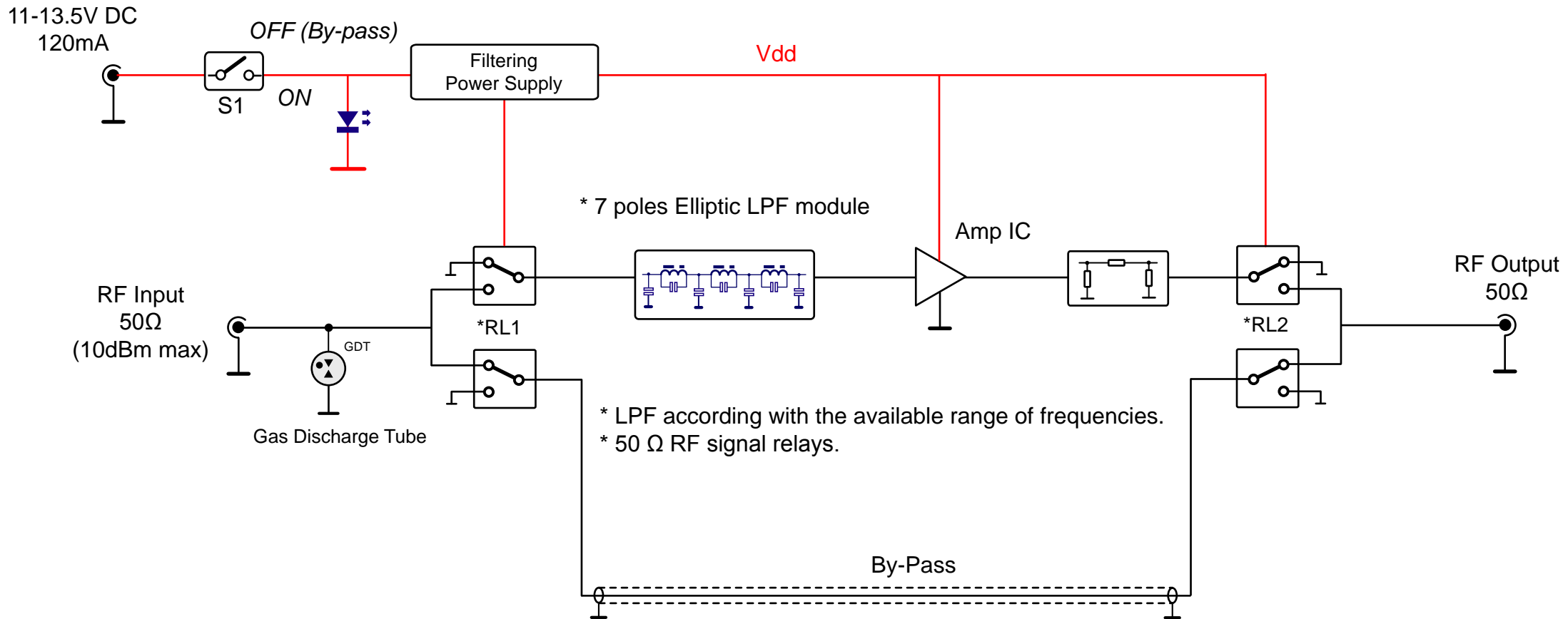
VHF-UHF working frequencies preamplifier (60MHz to 500MHz)

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

- Input/Output impedance: 50 Ohms.
- Input power: 0dBm max.
- Antenna surge suppression: Gas discharge tube on Input port.
- Passive, 7th order, Elliptic Low pass filter.
- Gain: 25dB @ 145MHz; 22dB @ 435MHz.
- IP3: 37dBm @ 60MHz; 39dBm @ 400MHz,
- Noise figure: 0.45dB @ 145MHz; 0.35dB @ 435MHz.
- High isolation, very low insertion loss, set of RF signal relays.
- Power supply circuitry includes protection and EMI decoupling.
- Amplifier ON-OFF/By-pass functions switch.
- In OFF state the unit is by-passed.
- 3mm LED signaling ON state.
- Power: 11V-15V DC/110mA.
- Size: 55x111x40mm (2.16x4.37x1.57in)
- Coaxial cable tails and power cable provided.
- Connectors: BNC standard; N, SMA or combined types available.

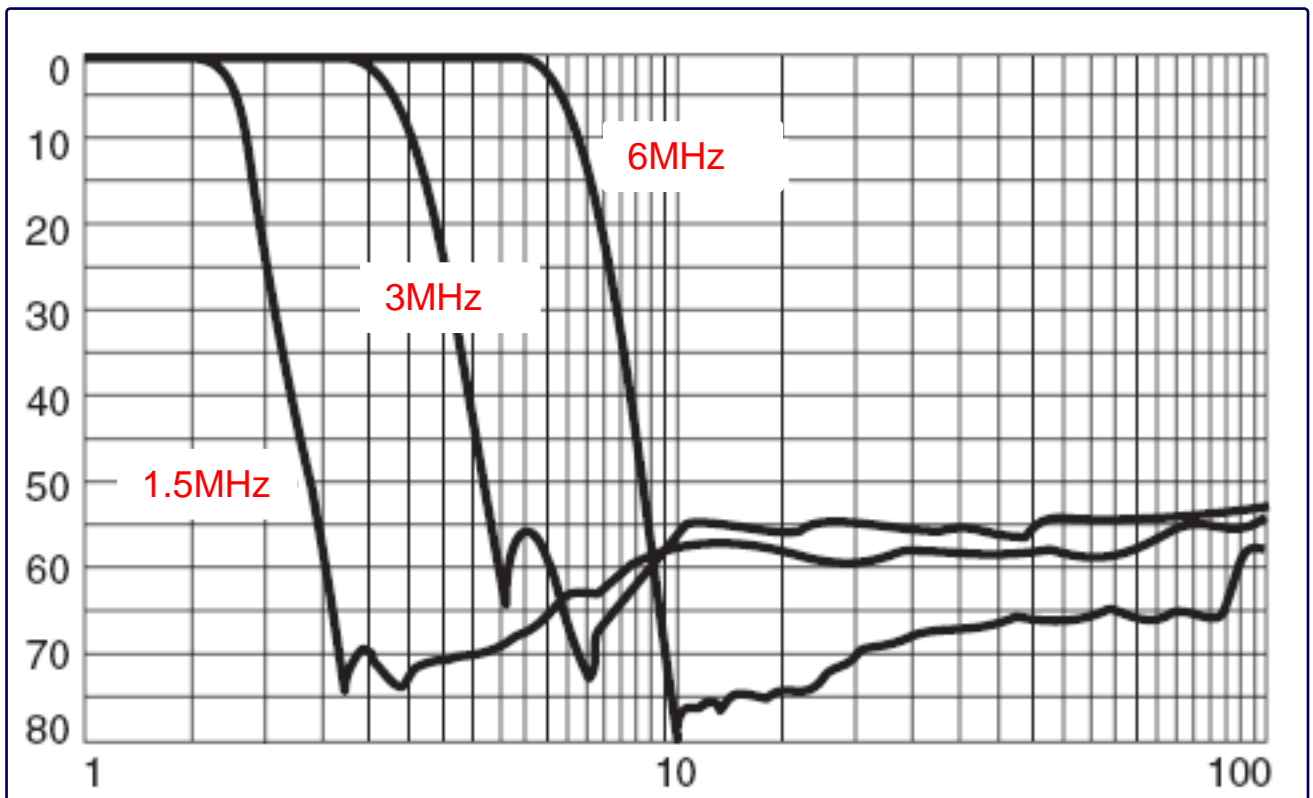
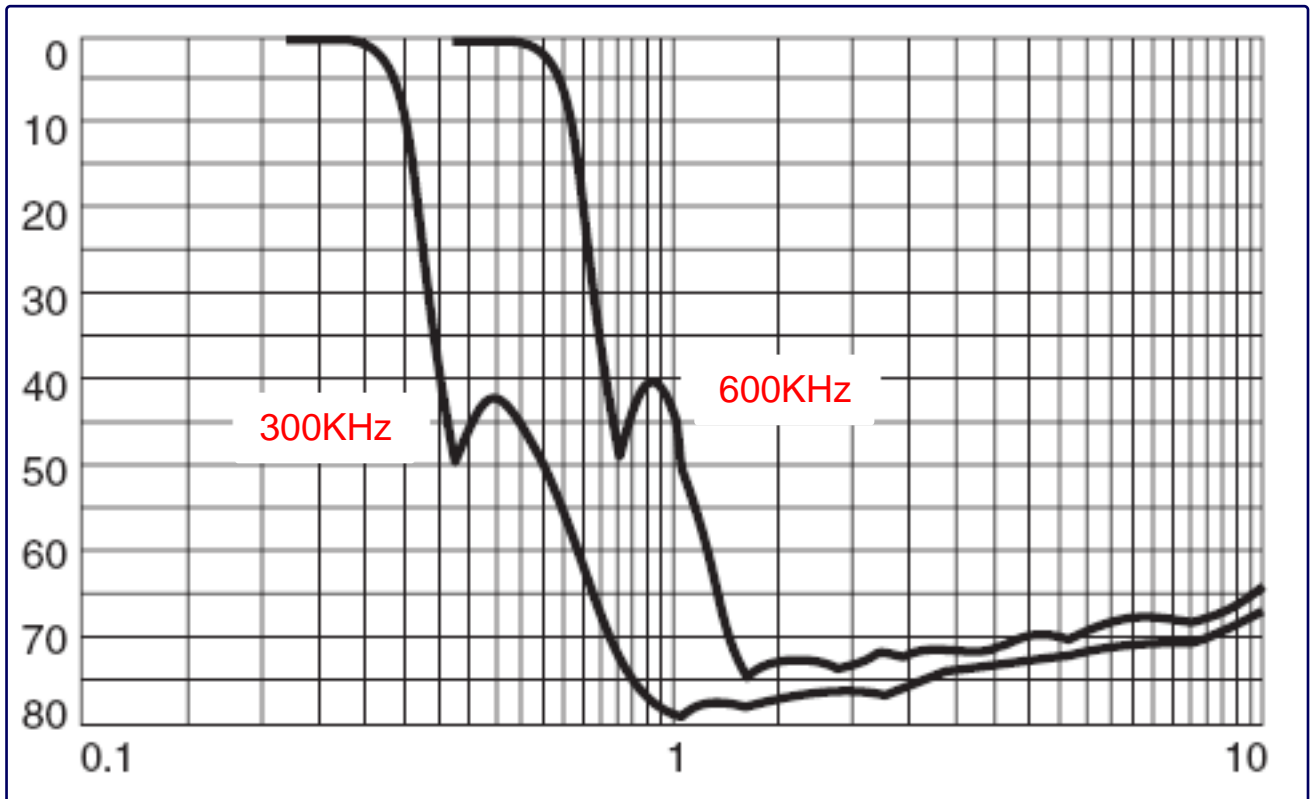
Customize versions available Please ask.

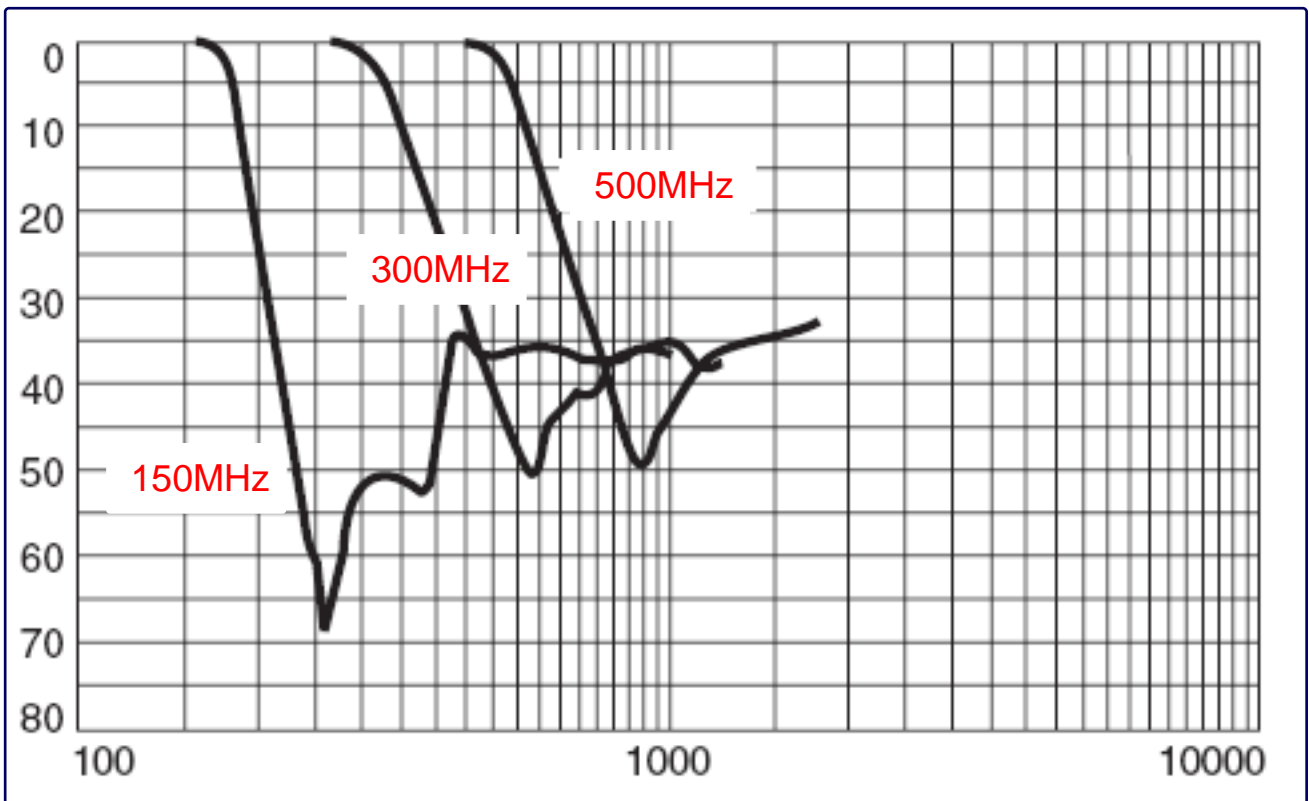
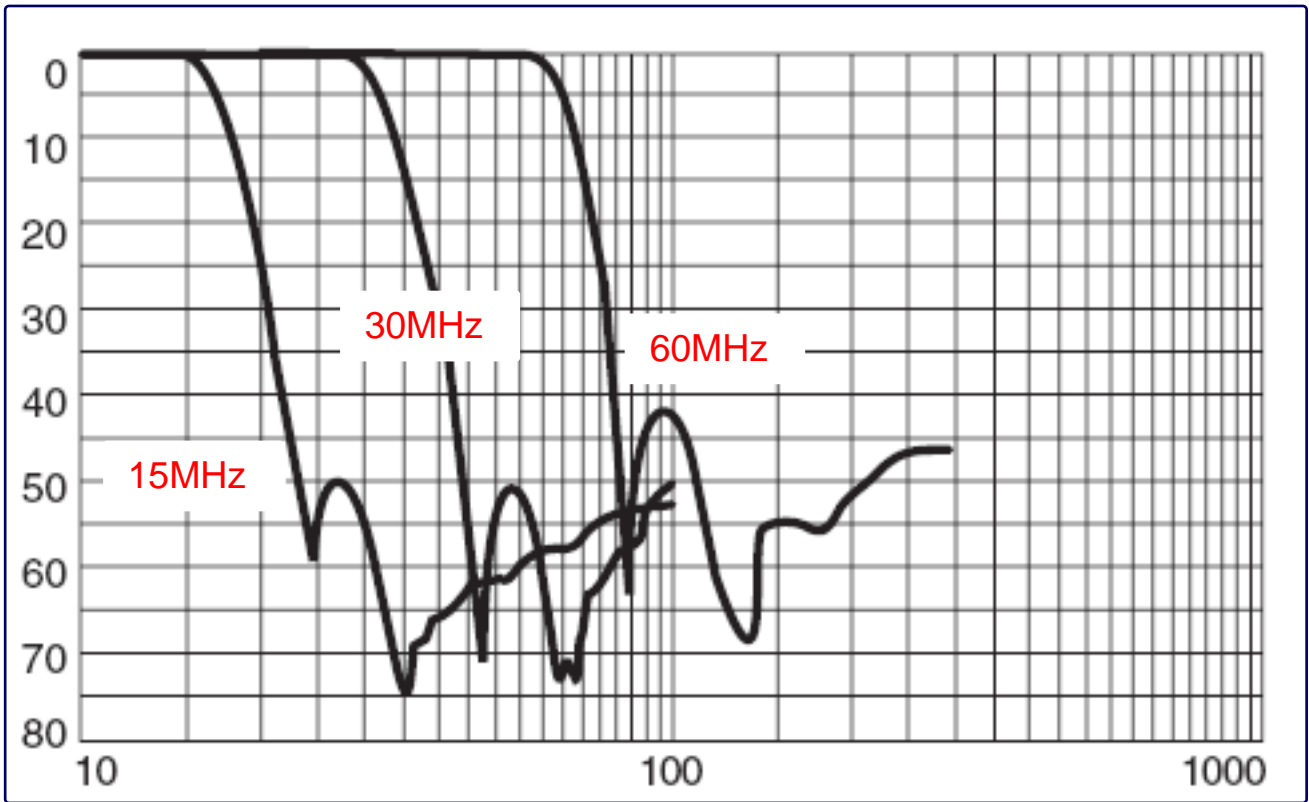
Prefiltered RF preamplifier. Simplify diagram



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





**NOTES:**

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