Q301GC-1  Duplexer, base station, Q-Circuit, Cabinet mounted, 406-420 MHz

- High attenuation at extremely close frequency spacings in 406-420 MHz band
- Quasi bandpass response suppresses spurious and side-band transmitter noise
- Available in either rack mount or cabinet enclosure

The Q-301G base station duplexer utilizes Sinclair’s Q-circuit design in a 6-cavity configuration to provide very high attenuation at extremely close frequency separation in the 406-512 MHz band. This design provides a quasi-bandpass response, resulting in suppression of spurious and side-band transmitter noise between and adjacent to the duplex frequencies. The Q-302G is available in either rack-mounted, Q-301GR, or cabinet enclosed, Q-301GC, configuration.

Application Notes

-1 is 406 to 420MHz
-2 is 450 to 470MHz
-3 is 470 to 512MHz
-4 is 420 to 450MHz
**Electrical Specifications**

- **Frequency Range**: MHz 406 to 420
- **Number of cavities Tx Side**: 3
- **Number of Cavities Rx Side**: 3
- **Input VSWR (max)**: 1.5:1
- **Impedance**: Ω 50
- **Isolation Rx carrier suppression at Tx (min)**: dB 100
- **Isolation Tx noise suppression at Rx (min)**: dB 100
- **Average Power Input (max)**: W 250
- **Connectors**: N-Female
- **Frequency separation (min)**: MHz 0.7
- **Insertion loss Rx to antenna (max)**: dB 2.2
- **Insertion loss Tx to antenna (max)**: dB 2.2

**Mechanical Specifications**

- **Depth**: mm (in) 437 (17.2)
- **Length/ Height**: mm (in) 1026 (40.4)
- **Width**: mm (in) 559 (22)
- **Weight**: kg (lbs) 49.94 (110)
- **Actual Shipping weight**: kg (lbs) 54.48 (120)
- **Shipping dimensions**: mm (in) 610x483x1118 (24x19x44)
- **Mounting configurations**: cabinet

**Environmental Specifications**

- **Temperature range**: °C (°F) -40 to +60 (-40 to +140)