## Quadruplexer

## Dual Quadruplexer Phase and Amplitude Tracked



**DESCRIPTION** The Dual Quadruplexer is used to separate two independent 2 to 18 GHz signals into four sub-octave bands while maintaining phase and amplitude tracking.

**ADVANTAGES** The Microphase designed and engineered Dual Quadruplexer provides low insertion loss, harmonic EW Applications Extremely Small Size Low Insertion Loss Superior Tracking

rejection and superior phase and amplitude tracking in an extremely small sized package. You get excellent electrical performance, mechanical reliability and environmental stability. These units can be adapted for custom configurations. Compact and very rugged, all of our products are 100% tested, and readily available.

SPECIFICATIONS	
Frequency Range	2.0 to 18.0 GHz
Crossover Frequencies f <sub>CO</sub>	3.464, 6.000, 10.392 GHz $\pm$ 0.5%
Passbands	
Channel 1	2 to 3.290 GHz
Channel 2	3.637 to 5.70 GHz
Channel 3	6.30 to 9.872 GHz
Channel 4	10.912 to 18.0 GHz
Passband Insertion Loss	0.8 dB max.
Crossover Insertion Loss	4.25 dB max.
Crossover Region	$f_{CO} \pm 5\%$
Crossover Region Population Amplitude Tracking	f <sub>CO</sub> ± 5% ± 0.3 dB
Crossover Region Population Amplitude Tracking Population Phase Tracking	f <sub>CO</sub> ± 5% ± 0.3 dB ± 7.5°
Crossover Region Population Amplitude Tracking Population Phase Tracking Rejection	f <sub>CO</sub> ± 5% ± 0.3 dB ± 7.5° 20 dB min. ± 15% of f <sub>CO</sub>
Crossover Region Population Amplitude Tracking Population Phase Tracking Rejection Channel 1	$f_{CO} \pm 5\%$ $\pm 0.3 dB$ $\pm 7.5^{\circ}$ 20 dB min. $\pm 15\%$ of $f_{CO}$ 3.984 to 18.0 GHz
Crossover Region Population Amplitude Tracking Population Phase Tracking Rejection Channel 1 Channel 2	$f_{CO} \pm 5\%$ $\pm 0.3 \text{ dB}$ $\pm 7.5^{\circ}$ 20 dB min. $\pm 15\%$ of $f_{CO}$ 3.984 to 18.0 GHz DC to 2.944, 6.9 to 18.0 GHz
Crossover Region Population Amplitude Tracking Population Phase Tracking Rejection Channel 1 Channel 2 Channel 3	$f_{CO} \pm 5\%$ $\pm 0.3 dB$ $\pm 7.5^{\circ}$ 20 dB min. $\pm 15\%$ of $f_{CO}$ 3.984 to 18.0 GHz DC to 2.944, 6.9 to 18.0 GHz DC to 5.1, 11.95 to 18.0 GHz
Crossover Region Population Amplitude Tracking Population Phase Tracking Rejection Channel 1 Channel 2 Channel 3 Channel 4	$f_{CO} \pm 5\%$ $\pm 0.3 dB$ $\pm 7.5^{\circ}$ 20 dB min. $\pm 15\%$ of $f_{CO}$ 3.984 to 18.0 GHz DC to 2.944, 6.9 to 18.0 GHz DC to 5.1, 11.95 to 18.0 GHz DC to 8.833 GHz
Crossover Region Population Amplitude Tracking Population Phase Tracking Rejection Channel 1 Channel 2 Channel 3 Channel 4 VSWR	$f_{CO} \pm 5\%$ $\pm 0.3 dB$ $\pm 7.5^{\circ}$ 20 dB min. $\pm 15\%$ of $f_{CO}$ 3.984 to 18.0 GHz DC to 2.944, 6.9 to 18.0 GHz DC to 5.1, 11.95 to 18.0 GHz DC to 8.833 GHz 2.0:1 max.