



IQ ASSEMBLY

MODEL 9211-30

Guaranteed Specifications

Parameter	Limits
Frequency	140 $\pm$ 14 MHz
Phase Range	0 – 360 °
VSWR (SIG & REF)	1.5:1 Max
Input Level	REF +10 dBm
	SIG 0 dBm
Video Bandwidth	100 MHz Min
Angular Accuracy ²	$\pm$ 3° Max
Amplitude Balance	$\pm$ 1 dB Max
SIN & COS Outputs	150 mV (Peak to Peak Typ)
Conversion Loss	6.5 dB Max
Carrier Rejection	30 dBc Min
Sideband Rejection	30 dBc Min
Harmonics	3xI/Q 45 dBc Min
	5xI/Q 55 dBc Min

Note: All Specifications apply in a 50 Ohm system at specified levels at 25°C.

²ARC TAN (SIN/COS)

Maximum Ratings

Input Power	+13 dBm Max
I and Q Input Current	40 mA Max
Temperature Range	0°C to 85°C

Reliability

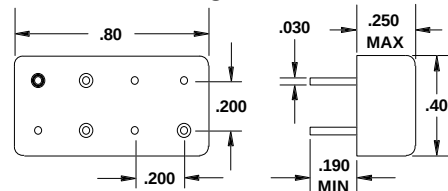
All units are designed and constructed to meet or exceed specifications after exposure to any or all of the following MIL-STD-202 tests which are applicable.

Test	Method	Condition
Temperature Cycle	107G	A
Thermal Cycle	107G	AA
Seal	112E	D
Vibration	204D	A
Solderability	208F	
Terminal Strength	211A	A
Terminal Fatigue	211A	C
Mechanical Shock	213B	C

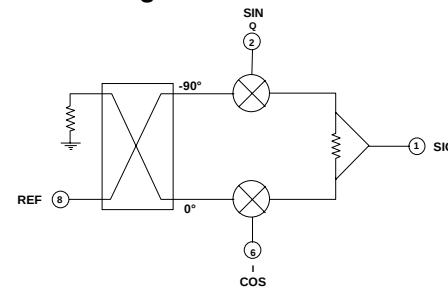
Applications

- ◆ 360° Phase Comparator
- ◆ Image Reject Mixer
- ◆ IQ Mod/Demod
- ◆ SSB Mixer

Outline Drawing

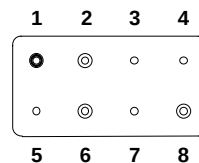


Block Diagram



Case is Signal Ground

Connections



SIG	1
SIN	2
COS	6
REF	8
GROUND	3,4,5,7

Glass bead on Pin 1 a different color

All characteristics of Tele-Tech products may be modified to meet customer requirements.

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