



IQ ASSEMBLY

MODEL 9811-27

Guaranteed Specifications

Parameter	Limits
Frequency	99 $\pm$ 9 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	175 mV (Peak to Peak Typ)
Conversion Loss	6.5 dB Max
Carrier Rejection	40 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.

² ARC TAN (SIN/COS)

Maximum Ratings

Input Power	+17 dBm Max
I and Q Input Current	40 mA Max
Temperature Range	0°C to 85°C

Reliability

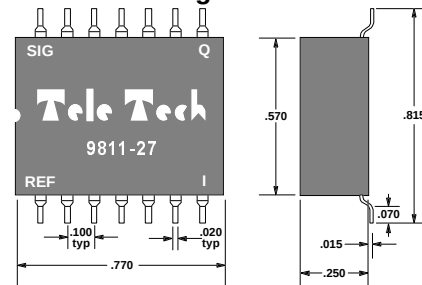
All units are designed and constructed to meet or exceed specifications after exposure to any or all of the following MIL-STD-202 tests which are applicable.

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

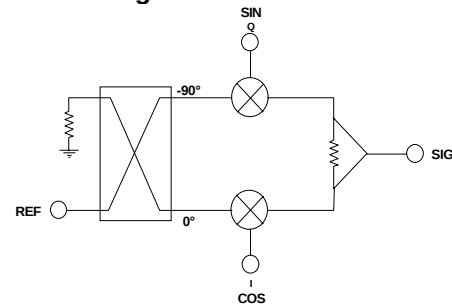
- ◆ 360° Phase Comparator
- ◆ Image Reject Mixer
- ◆ IQ Mod/Demod
- ◆ SSB Mixer

Outline Drawing

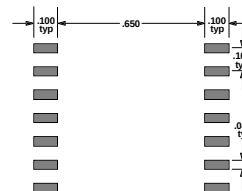


All unused pins must be connected to signal ground

Block Diagram



Footprint



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