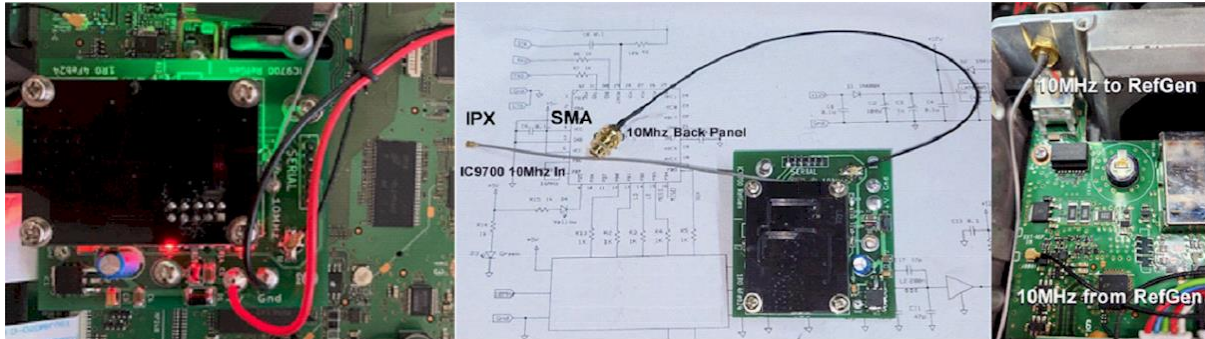


The RefGen-9700 module provides injection lock of a IC9700 to an external 10MHz reference generator such as the GPS Disciplined Reference GPSD-2 (see [CLUB SHOP – City Of Brisbane Radio Society inc.](#))



The RefGen-9700 generates a stable 49.152MHz signal and couples this injection lock signal into the IC9700 reference oscillator TCXO to ensure the stability and accuracy of the radio frequency.

The module mounts internally, mountings on existing screw locations. The injection coupler is mounted on the back of the module and is precisely located within the TCXO shield.

The 10MHz external reference connects to the RefGen-9700 via the existing rear panel SMA connector location.

A cable with IPX connector connects the external 10Mhz reference via the RefGen-9700 to the IC9700 EXT-IN (JB8801 IPX jack). This allows the IC9700 “Auto Sync” function to remain operational simplifying the setup of the injection locking and ensuring the injection locking under all radio operating conditions.

Traditional setup, if preferred, using a local beacon signal is available.

The RefGen-9700 is powered from the radio’s supply of 13.8V dc, from the back of the auxiliary 8pin DIN connector. The current drain is less than 150mA.

Specifications

Frequency	49.152 MHz	MHz	
Stability	Typically <5	pbb	Depends on 10Mhz Reference
Accuracy	Typically <10	pbb	Depends on 10Mhz Reference
Power Supply	12 - 15	Vdc	Drawn from radio supply
Consumption	<150	mA	@13.8 V
Phase Noise	< 130dBc/Hz		Up to 1MHz
	< 140dBc/Hz		Above 1MHz
Indicators LED	Green	Power	Supply On
	Yellow	Locked	
Dimensions	65 x 55 x 20	mm	L x W x D