



## RF SIGNAL SELECTOR QA012

### **FEATURES:**

- E.W. BUILDING BLOCK DESIGNED FOR FIXED WING FIGHTER OR ATTACK HELICOPTER ENVIRONMENTS
- FULLY INTEGRATED WITH OTHER FILTRONIC E.W. BUILDING BLOCKS
- BUILT IN LIMITER PROTECTION
- SELECTABLE INPUTS FOR SIGNAL, B.I.T. OSCILLATOR OR WIDEBAND NOISE
- CURRENTLY IN PRODUCTION

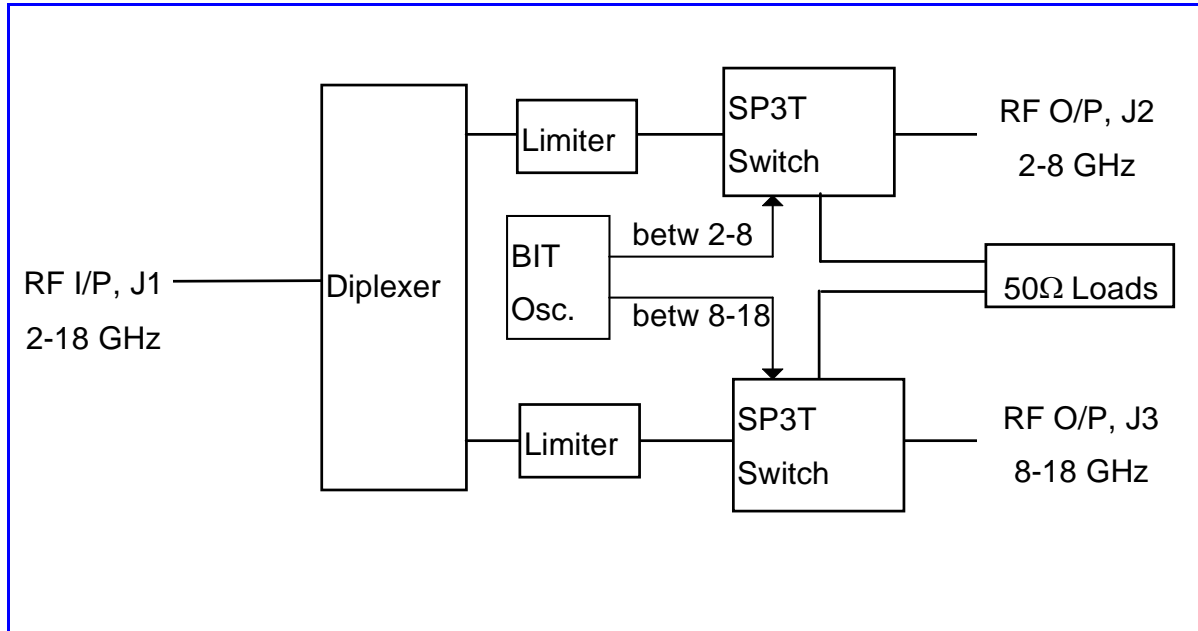
### **DESCRIPTION:**

The QA0012 is a broad band signal selection device intended to be used for band splitting at the RF front end of a broad band RWR/ESM receiver. It features a highly selective low loss SSS diplexer which splits a 2-18 GHz signal from the user's spiral antenna into 2-8 and 8-18 GHz bands. The signal is output to the receiver chain which may comprise DLVA and IFM or SHR. FCL manufactures a family of receiver building blocks which may be cascaded for this purpose.

Receiver protection is provided by integral PIN diode limiters and BITE is provided to each band via an internal oscillator to allow testing and calibration of the subsequent receiver chain.

The device exhibits excellent performance tracking and is built to withstand the rigours of fixed wing fighter or attack helicopter environments.

FCL manufactures two other such assemblies, the QA013 which has two separate 2-8 and 8-18 GHz antenna inputs and incorporates band defining filters and the QA014 which is a dual receiver designed to cover the 0.4-2 GHz band.

**CHARACTERISTICS**

**QA012 CIRCUIT TOPOLOGY**
**Performance Summary:**

<b>Input Frequency:</b>	<b>2-18 GHz</b>
<b>Diplexer Crossover</b>	<b>8 GHz +/- 1%</b>
<b>Crossover Loss</b>	<b>IL + 5 dB</b>
<b>Crossover Region</b>	<b>5%</b>
<b>Stopbands</b>	<b>10% from band edges</b>
<b>Stopband Isolation</b>	<b>60 dB</b>
<b>Insertion Loss</b>	<b>6 dB nominal</b>
<b>Population tracking</b>	<b>1 dB</b>
<b>Peak Power Protect</b>	<b>200W 1 microsec PW .2% duty</b>
<b>BITE</b>	<b>Each band +/-0.5% Accuracy</b>
<b>Operating Temperature</b>	<b>-54 to +85C</b>