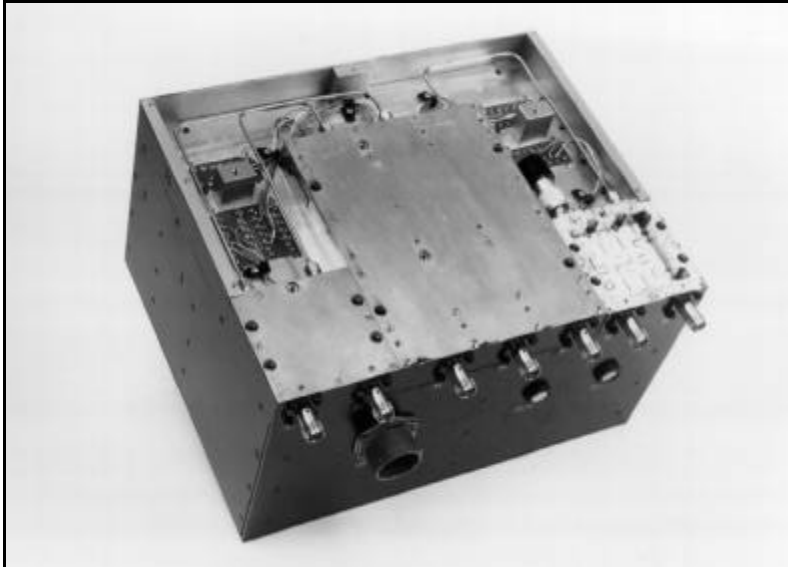


# PHASE SHIFTER / SWITCH MODULE FOR ELECTRONIC TACAN ANTENNA



## TYPICAL SPECIFICATIONS

Frequency Range	960 - 1225 MHz
RF Input Power (J1, J2 & J3)	500W peak, 20W average, 5µsec Pulse Width
Load Impedance	50 Ohm nom., open/short at full power, all phases - no damage
Insertion Loss	4.5 dB max.
VSWR	2:1 max., 1.5:1 average
Phase Steps	22.5°
Phase Error	± 10° peak, 7° RMS
Phase Tracking, Channel to Channel	within ± 10° at 0° phase setting
Transfer Switch Isolation	40 dB min.
Control	TTL, 4 lines per phase shifter, 1 line per switch
Switching Time, 50% TTL, 90/10% RF	300 nsec. typ., 400 nsec. max.
Switching Mode	Cold (between RF pulses)
DC Power (V+/-10%)	+5V/1.75 A, -50V/180 mA
Power Supply Protection	Slow-blow fuses
BITE	Monitors PIN diodes, driver operation and supply voltages
BITE Output	single TTL line
Operating Temperature	-55° to +85°C (air and mounting plate temperature)
Humidity	to 100%
RF Connectors	TNC (F)
DC and Control	CGK 32 pin miniature circular or equivalent
Dimensions	8.67" W x 10.8" L x 6.7" H
Weight	9 lbs.
Part Number	RFS0912-S2

## DESCRIPTION

This module has three RF inputs of 500 Watt peak and 20 Watt average power. Each of the three channels contain a 4-bit digital phase shifter and the phase shifters' outputs feed two transfer switches, as shown in the circuit diagram. The module includes all necessary PIN diode drivers for the phase bits and switches, as well as BITE circuitry, which monitors all PIN diodes, drivers and DC supply voltages, and gives a TTL "fault" indication if any parameters are out-of-range.

## APPLICATIONS

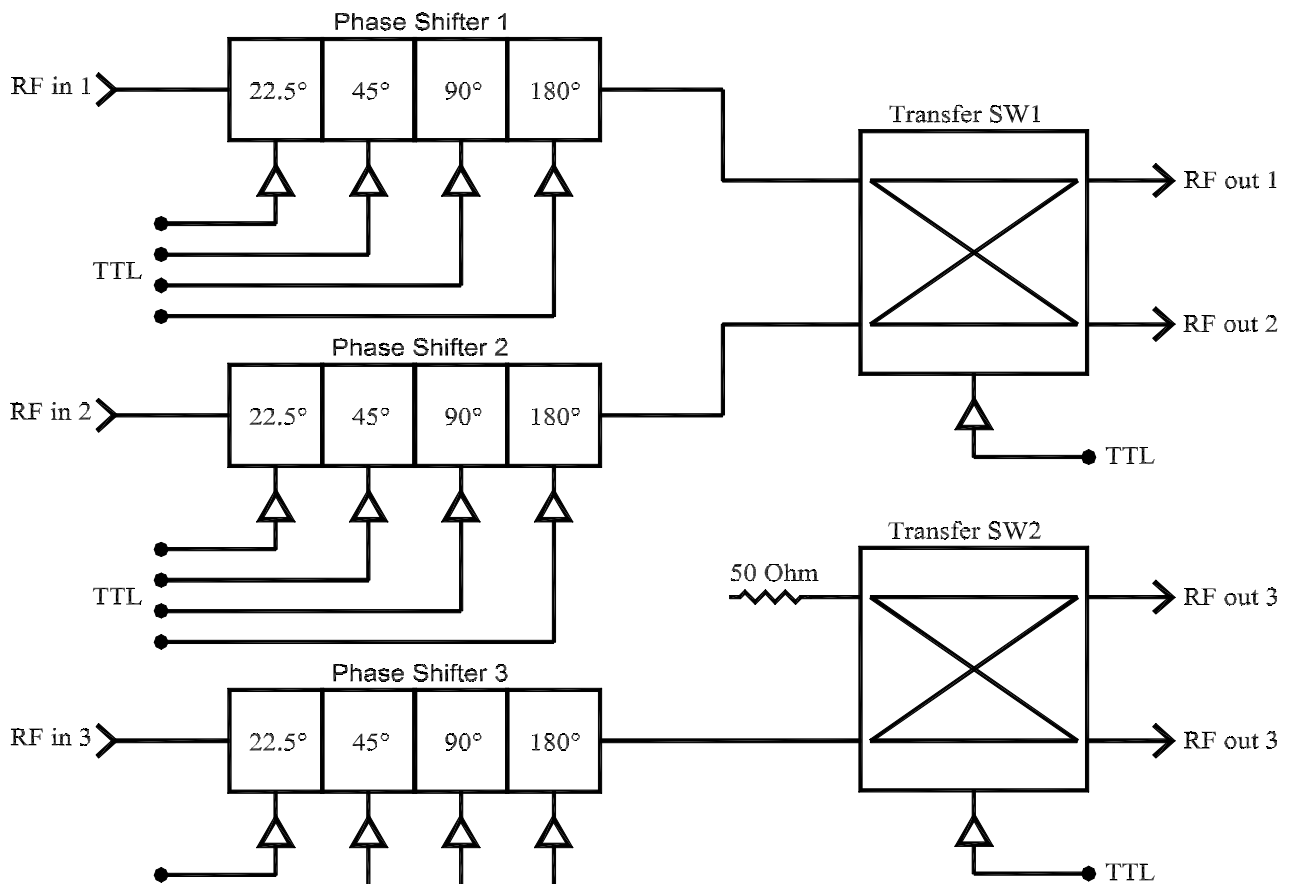
- Multi-sector array antenna for TACAN transmitters



**VECTRONICS MICROWAVE CORP. / A Micronetics Company**

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