

# 3- Port DROP - IN CIRCULATOR / ISOLATOR

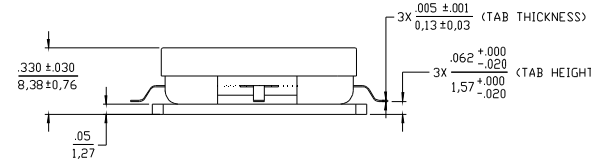
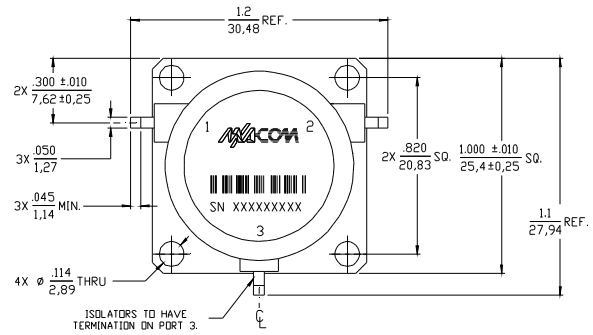
## 1930 - 1990 MHz

## FR11-0004, FR12-0004

### Features

V2.00

- 24 dB Isolation typical, 0.25 dB Insertion Loss typical.
- Custom products available with alternate configurations such as couplers, attenuators, higher power terminations, reverse circulation and termination on ports 1 or 2.
- Available as custom product without flange for surface mount applications. (solder reflow)
- Designed for Wireless Telecommunications Systems:  
US PCS

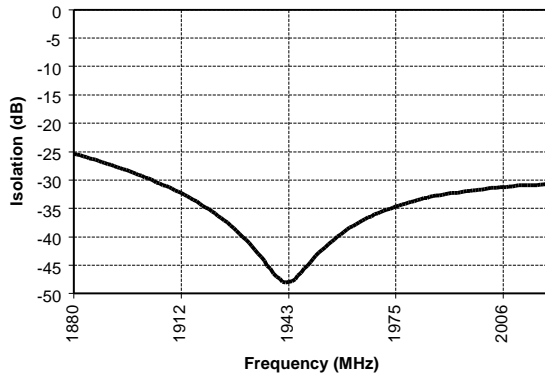


### Description

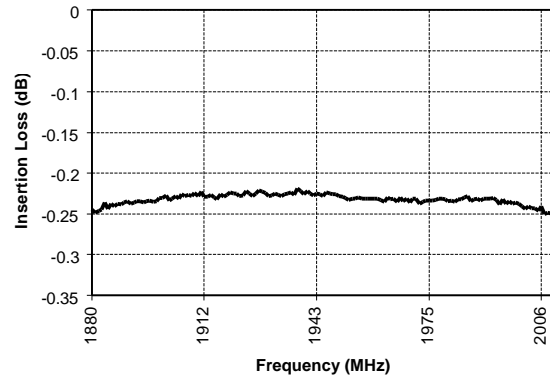
M/A-COM's drop-in circulators and isolators, designed for cellular applications, feature high performance at low cost. These designs offer the best isolation per insertion loss ratio in the industry and are currently produced in the tens of thousands of pieces per year. These units can be ordered so as to be compatible with solder reflow manufacturing techniques. Both circulators and isolators are in stock at all authorized M/A-COM distributors.

### Typical Performance, T = + 25° C

ISOLATION



INSERTION LOSS



### Electrical Specifications:

- 10 to + 60° C

- 30 to + 85° C

Parameter	Units	- 10 to + 60° C			- 30 to + 85° C		
		Min.	Typ.	Max.	Min.	Typ.	Max.
Isolation	dB	22	24		20	22	
Insertion Loss	dB		0.25	0.3		0.30	0.35
Forward Power	Watts			65			65
VSWR				1.20			1.22

### Ordering Information

Part Number	Device Type
FR11-0004	Circulator
FR12-0004	Isolator*

\*30 Watt termination on Port 3

Specifications subject to change without notice.