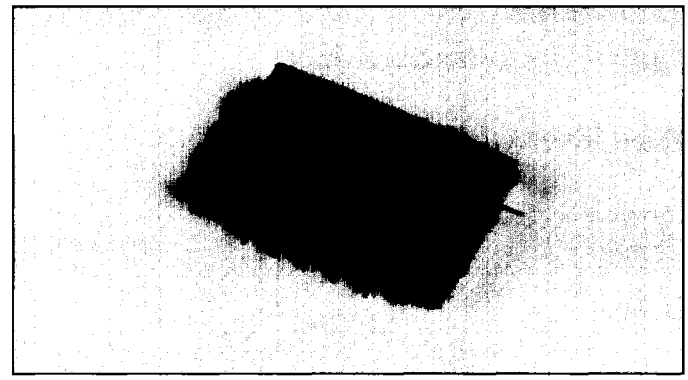
2953-Series



Features

- Broadband Frequency Ranges
- Hermetic Package
- Stripline Compatible
- Compact Size
- TTL Compatible Driver

Description

M/A-COM 's switch modules with TTL compatible drivers have been designed to incorporate broad bandwidth (0.5-18.0 GHz) design techniques with integral hybrid driver circuitry. The results are multi-octave bandwidth devices which retain the stripline compatibility feature of a module while also incorporating a low power consumption driver capable of switching the RF circuitry in less than 40 nS. Construction techniques allow these devices to be used in today's most stringent military environments.

Screening

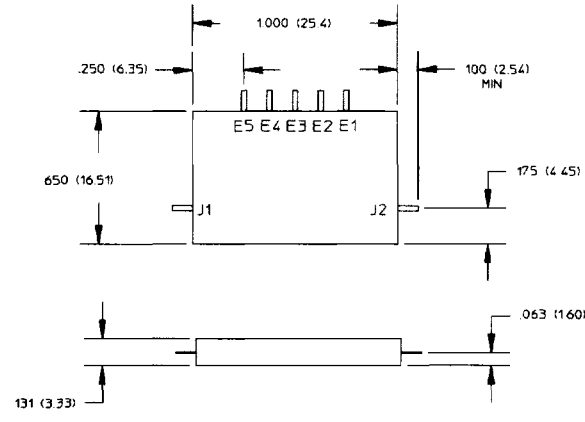
All devices are fully screened in accordance with the following sequence:

Test	MIL-STD	Method	Cond
Non-Destructive Bond Pull	883	2023	
Internal Visual	M/A-COM	QCP	H076
Stabilization Bake	883	1008	B
Thermal Cycle	883	1010	B
Constant Acceleration	883	2001	A (Y1 Axis)
Burn-in	883	1015	125°C
Seal Fine	883	1014	A1
Gross	883	1014	C1
External Visual	883	2009	

Maximum Ratings

Storage Temp.	-65°C to +125°C
Operating Temp.	-55°C to +95°C

Mechanical Outline



±.002
Leads are .012 (.31) diameter (std.).
± .010 ±.002
May be supplied as tabs: .025 (.64) Wide, .006 (.15) Thick (opt.).

Terminal Assignments

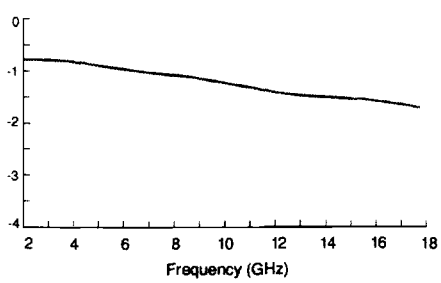
Terminal	Assignment	Terminal	Assignment
J1	RF Port 1	E3	Ground
J2	RF Port 2	E4	+5 Volts
E1	TTL Logic	E5	No Connection
E2	-12 Volts	Case	Ground

RF Assignment

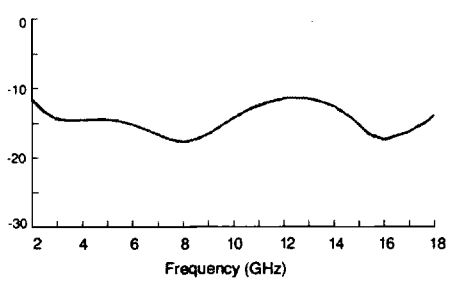
TTL	J1-J2
0	Loss
1	Isolation

Typical Performance Data 2953-1004

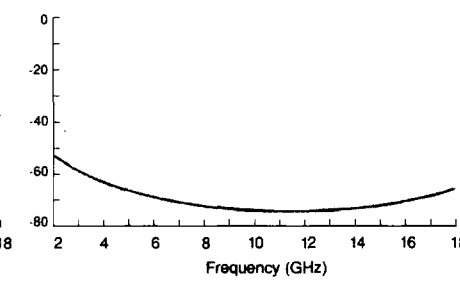
Insertion Loss (dB)



Return Loss (dB)



Isolation (dB)



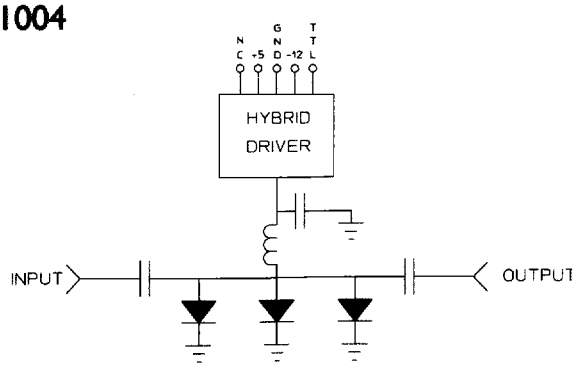
M/A-COM Control Components Division ■ 21 Continental Blvd., Merrimack, NH 03054-4343 ■ Tel (603) 424-4111 Fax (603) 424-6580

2953-Series
Typical Specifications 25°C

Frequency Range (GHz)	Insertion Loss (dB)	VSWR	Isolation (dB)	Switching Speed (nS)	Power Handling (W)	Part Number
0.5-2.0	0.7	1.5:1	50	50	0.5	2953-1001
2.0-8.0	1.1	1.7:1	55	50	0.5	2953-1002
6.0-18.0	1.9	1.9:1	60	50	0.5	2953-1003
2.0-18.0	2.1	2.0:1	60	50	0.5	2953-1004

Notes:
1. Bias: +5V ± 5%@ 75mA maximum
   -12V ± 5% @ 50mA maximum
2. Switching speed is measured from 10%-90% and 90%-10% of the detected RF with a 2 MHz maximum switching rate.
3. Operating power is 100 mW maximum.

Typical Schematic 2953-1004



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