

**DESCRIPTION**

Microsemi – Lowell's switch modules provide an economical way of achieving a switch function from UHF through Ku band. These switch modules provide broadband, high performance characteristics in a small package. Our catalog parts are basic examples of our capability. We will be glad to explore your specific requirements with the goal of providing custom parts for your needs.

This series of modules meets RoHS requirements per EU Directive 2002/95/EC. The standard terminal finish is gold unless otherwise specified. Consult the factory if you have special requirements.

**IMPORTANT:** For the most current data, consult MICROSEMI's website: [www.MICROSEMI.com](http://www.MICROSEMI.com)



These devices are ESD sensitive and must be handled using ESD precautions.

**ABSOLUTE MAXIMUM RATINGS AT 25° C  
(UNLESS OTHERWISE SPECIFIED)**

Rating	Symbol	Value	Unit
Storage Temperature	T <sub>STG</sub>	-55 to +125	°C
Operating Temperature	T <sub>OP</sub>	-55 to +95	°C
RF CW Power Handling	P <sub>CW</sub>	0.5	W

**KEY FEATURES**

- Multi Octave Frequency Ranges
- Coaxial Connection
- Consistent VSWR
- Internal TTL Driver
- RoHS Compliant

**APPLICATIONS/BENEFITS**

- Coaxial Assembly
- Broadband (0.5 – 18 GHz)

**▶ GUARANTEED ELECTRICAL PARAMETERS @ 25°C (unless otherwise specified)**

Model Number	Frequency Range	Ins. Loss (dB) (Max)	Isol. (dB) (Min)	VSWR (Max)	SWITCHING SPEED (uS) (Max)
GG75420-01	0.5 - 4.0	1.6	45	1.5:1	1.0
GG75420-02	2.0 - 8.0	2.1	40	1.7:1	1.0
GG75420-03	4.0 - 12.4	2.6	40	1.8:1	1.0
GG75420-04	8.0 - 18.0	3.2	35	1.9:1	1.0
GG75420-05	2.0 - 18.0	3.2	35	2.0:1	1.0

**Notes:**

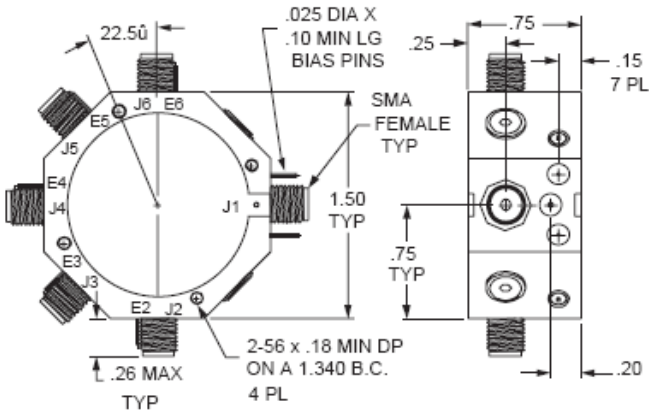
1. RF Power Handling; 0.5W CW
2. Switching Speed: 1.0μsec (max).
3. Internal Load Rating 100mW (max).
4. Switching Speed is measured from the 50% point of the TTL pulse to the 90/10% point of the RF pulse at a 100 kHz maximum switching rate.
5. Required D.C. Bias: +5v @ 200mA (max) and -8 to -15v @ 50 mA (max).
6. Temperature Rating: Operating, -55 to +95°C; Storage, -55 to +125°C.
7. Only the switched arms, J2 thru J6, are matched in the isolated state.  
The common arm, J1, is matched only when one path is in the loss state.

**▶ ENVIRONMENTAL**

These units are designed to withstand the following environmental conditions without damage.

**▶ ENVIRONMENTAL CONDITIONS**

TEST	MIL-PRF	METHOD	CONDITION
Internal Visual	883	2017	--
Stabilization Bake	883	1008	B
Thermal Cycle	883	1010	B
Constant Acceleration	883	2001	1 (Y1 Axis)
Burn In	883	1015	125 °C
Humidity	202	103B	B
External Visual	883	2009	--

**OUTLINE 210050**
**NOTES**

**Notes:**

1. All pins are .025 ±.001" dia., .100" (min) long.
2. Tolerances:  
 .xxx .010"  
 .xx .020"
3. Leads gold plated per MIL-G-45204, Type 3, Grade A 50 μinch (min).
4. Case finish: Epoxy Paint, Grey #36231.
5. Other packaging available on special order.

**TRUTH TABLE**

E2	E3	E4	E5	E6	J1 - J2	J1 - J3	J1 - J4	J1 - J5	J1 - J6
0	1	1	1	1	Loss	Isolation	Isolation	Isolation	Isolation
1	0	1	0	1	Isolation	Loss	Isolation	Isolation	Isolation
1	1	0	1	1	Isolation	Isolation	Loss	Isolation	Isolation
1	1	1	0	1	Isolation	Isolation	Isolation	Loss	Isolation
1	1	1	1	0	Isolation	Isolation	Isolation	Isolation	Loss