

**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
- Hermetically Sealed
- Coaxial Connections
- Consistent VSWR
- Internal TTL Driver
- RoHS Compliant

**APPLICATIONS/BENEFITS**

- Coax Assembly
- Broadband (0.5 – 18 GHz)

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

| Model Number | Frequency Range | Ins. Loss (dB) (Max) | Isolation (dB) (Min) | VSWR (Max) | SWITCHING SPEED (µS) (Max) |
|--------------|-----------------|----------------------|----------------------|------------|----------------------------|
| GG71420-01   | 0.5 - 4.0       | 1.7                  | 55                   | 1.5:1      | 1.0                        |
| GG71420-02   | 2.0 - 8.0       | 2.1                  | 50                   | 1.7:1      | 1.0                        |
| GG71420-03   | 4.0 - 12.4      | 2.4                  | 45                   | 1.8:1      | 1.0                        |
| GG71420-04   | 8.0 - 18.0      | 2.9                  | 45                   | 1.9:1      | 1.0                        |
| GG71420-05   | 2.0 - 18.0      | 2.9                  | 45                   | 2.0:1      | 1.0                        |

**Notes:**

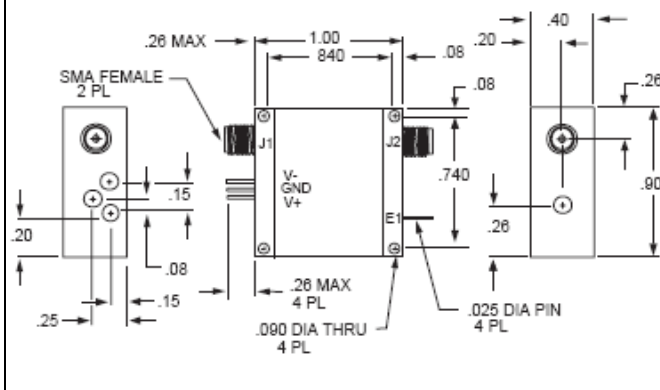
- RF Power Handling: 0.5W CW.
- Switching Speed is measured from the 50% point of the TTL pulse to the 90/10% of the detected RF pulse with a 100 KHz maximum switching rate.
- Required D.C.Bias: +5V @75mA (max) and -8 to -15 volts @ 50mA (max)
- Logic: TTL "0" = loss; TTL "1" = isolation
- In the isolation state the switch is matched at J1 input only.

**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 210059**
**NOTES**

**Notes:**

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