TAKING COMMAND THROUGH THE
Development of Innovative Space Technologies

Microwave Products Group
A DOVER COMPANY
Space business experts stress the three most critical aspects of supplier selection:

**HERITAGE, HERITAGE, HERITAGE.**

**Quick Facts:**
- Space heritage of over **45 years**
- Filters, Switches (Coax & Waveguides), IMUX & Assemblies
- From L to Q & V Band
- Partnered in **150** different space programs
- Using over **200** different product designs
- NASA and ESA Approved Products
- Domestic and International Programs
- Commercial and Military Applications

**Where can we help?**

**Quality Certifications/ Soldering and Workmanship Standards**
- IPC J-STD-001
- IPC J-STD-001S (For Space Products)
- IPC-A-610 Class 3
- NASA-STD 8739.3 (When Required)

**Dedicated Team**
- Space Engineers
- Business Development & Sales
- Program Managers Q&A
- Procurement
- Certified Space Production Technicians
- Production Personnel

**Certifications and Programs**
- APOLLO 17
- GPSII, GPS-IIF, GPSIII
- MARS SCIENCE LAB
- MUOS
- GALILEO
- GOES-R, S, T, U
- JCSAT 17
- IRIDIUM CONSTELLATION
- KEPLER
- EUTELSAT
- SKYNET
- INMARSAT
- GLONASS
- TDRSS
- SPACE SHUTTLE
- DEEP IMPACT
- TURKSAT
- AMOS
- ISRO
- INSAT
- NovasAR
- CYGNSS
- NGSAR
- COMSAT NG
- RapidEye
- LSAT
- ATLAS
- KOMPSAT
- SYMPHONIE
- AND MANY MORE...
Microwave Products Group offers matrices and integrated assemblies for the most demanding platforms, leveraging decades of expertise supplying critical HI-REL components, such as space qualified filters and switches.

**Solid State Switching/Matrix Capabilities:**
- Butler Matrix Networks
- High Throughput Matrix
- Solid state PIN diode
- FET Matrix Switches

**Mechanical Switches:**
- Coaxial Switch (DC-27 GHz)
- SPDT, DPDT, T-Switch, SP6T
- Miniature Mechanical Switch (DC-12 GHz)
- SPDT

**Filters/Switch Assemblies with:**
- Power Dividers
- Terminations
- Circulators
- Attenuators
- Isolators
- IMUX
- Hybrids
- LNAs

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**Lumped Element Filters:**
- Frequency Ranges: 3 MHz to 6 GHz
- Operational Bandwidth: narrow bands to multiple octaves

**Cavity Filters:**
- Comline & Dielectric Cavity
- Frequency Ranges: 1 GHz to 18 GHz
- Operational Bandwidths from 0.2% to 50%

**Suspended Substrate Filters:**
- Frequency Ranges: 1 GHz to 18 GHz
- Operational Bandwidth 10% of Fc to multi-octave

**High Dielectric Thin Film Filters:**
- Frequency Ranges: 2 GHz to 18 GHz
- Operational Bandwidth 5% of Fc to multi-octave

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**Mechanical Switches:**
- Coaxial Switch (DC-27 GHz)
- SPDT, DPDT, T-Switch, SP6T
- Miniature Mechanical Switch (DC-12 GHz)
- SPDT
High Power Products

Waveguide Filters
- Frequency Ranges: 4 GHz to 94 GHz
- Operational Bandwidth 0.1% to 25%
- High Power
- High Levels of Rejection
- Extracted Pole Technology
- Dual Mode Options
- Phase and Group Delay Equalization

Waveguide Switches
- WR 112
- WR 90
- WR 75
- WR 62
- WR 51
- WR 42
- WR 34
- WR 28
- WR 22
- WR 15

On-site Environmental Test Lab
- Vibration and Shock
- Temperature Chambers
- Thermal Vacuum Chambers
- Thermal Shock Chambers
- High Power Test Beds
- Network Analyzers up to 94 GHz
- Passive Inter-Modulation (PIM)
- Multipaction
- Seal (Fine and Gross Leak)
- Moisture Resistance / Humidity
- Salt Spray
- Life Test
- Acceleration
- Altitude / Barometric Pressure (Reduced)
- Insulation Resistance

Inspection
- Optical Coordinate-Measuring Machine
- Coordinate-Measuring Machine
- X-Ray fluorescent Analyzer

Q & V Band Products
- Rectangular Waveguide Bandpass Filter
- Designed for Q & V Band applications

Clean Room Capacity
- Four Class 7 Clean Rooms to ISO 14644-1
- Class 5 Flow Bench Assemblies

On Site Calibration
- MIL-STD 45662, ANSI Z-540, and ISO 10012
- Standards are traceable to the NIST

Microwave Products Group • www.dovermpg.com • support@dovermpg.com
Microwave Products Group unifies the heritage, product leadership and innovation of four world class brands to enable communication, provide signal control and take command of space technology development.

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