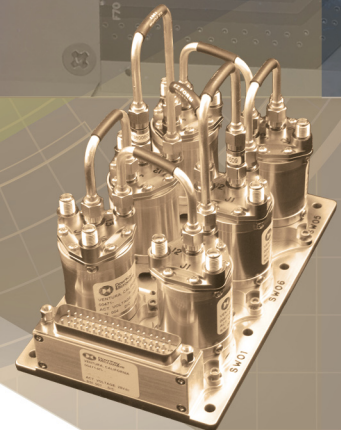


TAKING COMMAND THROUGH THE

DEVELOPMENT
OF INTEGRATED
MICROWAVE
SOLUTIONS



CONNECTING & PROTECTING

a **DOVER** company



SUBSYSTEMS



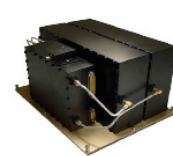
INTEGRATED COSITE EQUIPMENT



LEGACY MULTICOUPLER



LTE/WIFI TEST BOX

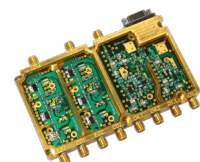


DOWN CONVERTER W/ LNA

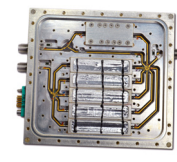


TEST SYSTEMS

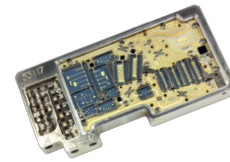
INTEGRATED MICROWAVE ASSEMBLIES (IMAS)



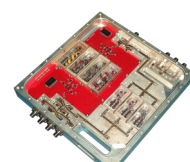
SIGNAL DISTRIBUTION UNIT



18 GHz IMA



2-18 GHz SWITCHED FILTER BANKS



7-CHANNEL

FILTERS



SURFACE MOUNT



TUNABLE



CO-AXIAL CONNECTORIZED

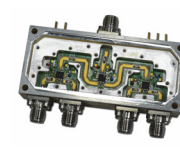


WAVEGUIDE

SWITCHES



SURFACE MOUNT



PIN DIODE

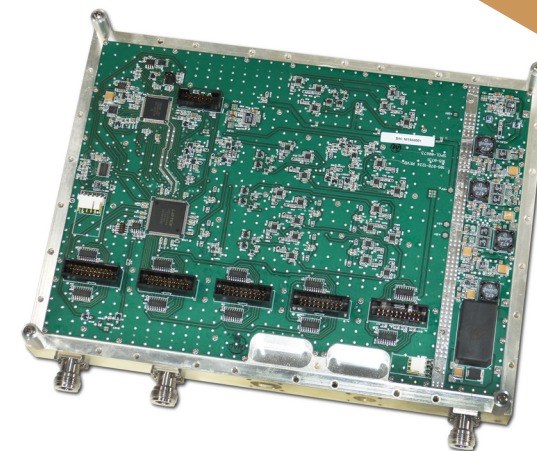


COAXIAL

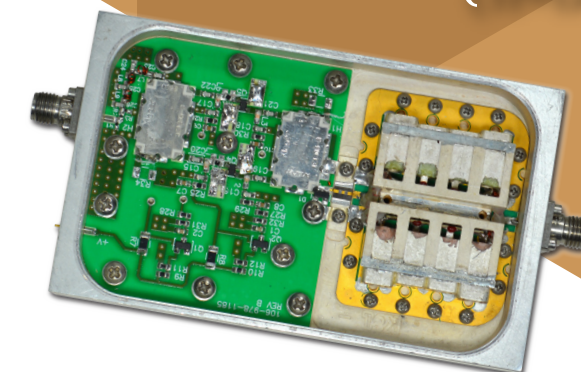


WAVEGUIDE

INTEGRATED MICROWAVE ASSEMBLIES (IMAS)

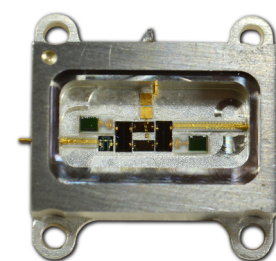


4 Band, 2-18 GHz Amplified Switched-Multiplexer
Provides receivers with ability to selectively reject intentional and unintentional interferers to preserve receiver sensitivity.



Pre-Filtered GPS LNA
4-Pole pre-filtered response with limiter and < 3 dB noise figure.

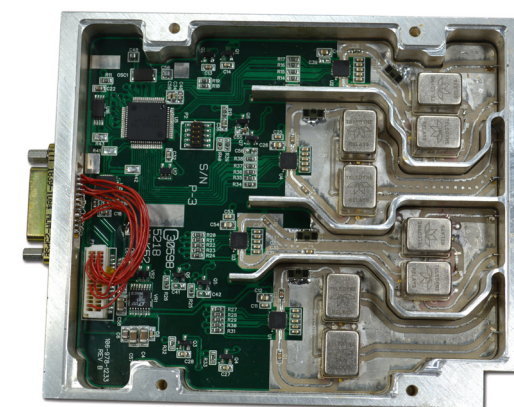
INNOVATION IN DESIGN



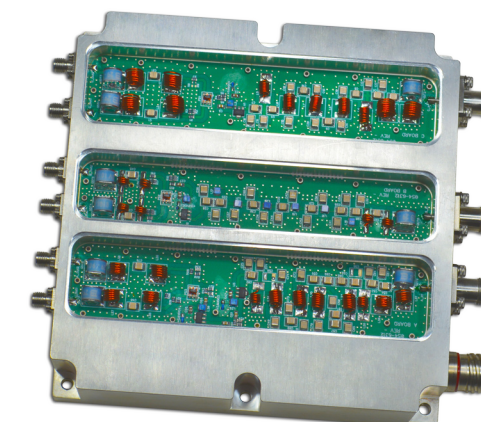
Low Noise Amplifier
Miniaturized low noise amplifiers for high reliability applications.



Space Matrix T-Switch Assembly
DC-22 GHz low loss switch assembly



Digital Attenuator with Low-Loss Bypass
4 independent paths, 45 dB digital attenuator with ultra low-loss bypass up to 5000 MHz.



Pre-Filtered LNA with Dual-Outputs
3 independent pre-filtered LNA's with embedded lightning protection for high-performance jet aircraft application.



MICROWAVE PRODUCTS GROUP (MPG) OFFERS CUSTOM AND STANDARD DESIGNS SUPPORTING SOME OF TODAY'S MOST CHALLENGING AEROSPACE, MILITARY, COMMERCIAL, AND SPACE APPLICATIONS.

CERTIFICATIONS

SANTO DOMINGO
ISO 9001:2015

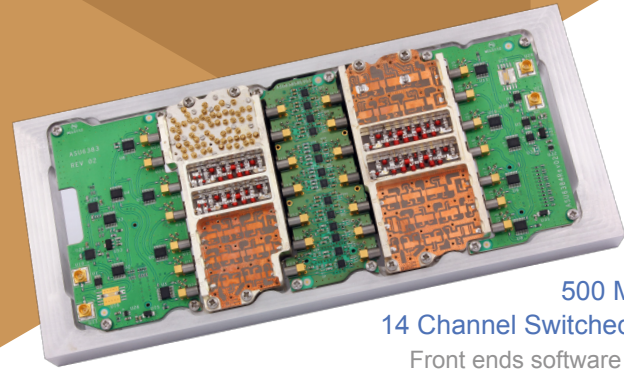
WEST CHESTER
AS9100D
ISO 9001:2015

SALISBURY
AS9100D
ISO 9001:2015

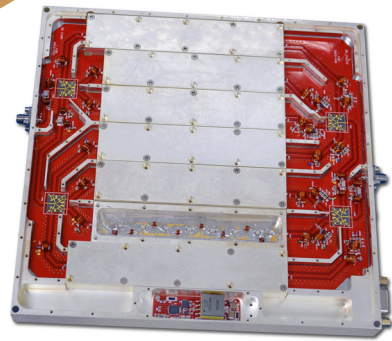
YORK
AS9100:2015
ISO 14001:2015
JOSCAR REGISTERED

VENTURA
AS9100
ISO-9001

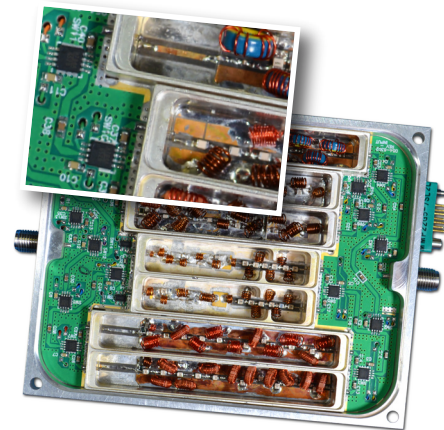
INTEGRATED MICROWAVE ASSEMBLIES (IMAS)



**500 MHz - 3 GHz
14 Channel Switched Filter Bank**
Front ends software defined radio
Tx & Rx functions Dynamic range
adjustment gain control

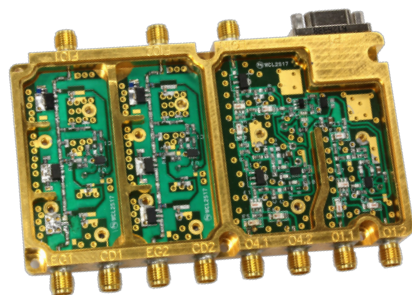


High Power Switched Filter Banks
100W+ VHF/UHF Bands, 50W L Band / S Band

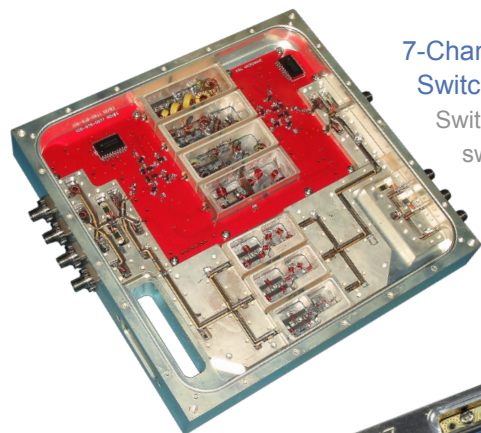


7-Channel, Switched Filter Bank
42-4000 MHz switched filter bank with
low in-band video leakage.

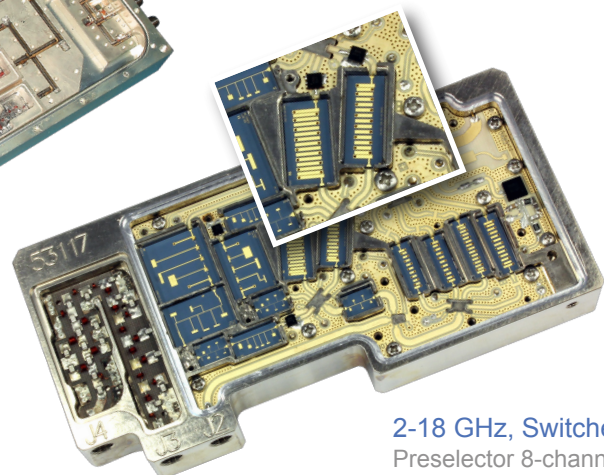
**6-18 GHz , Radar Warning
Receiver Building Block**
for RF and local oscillator
signal distribution



RELIABLE. FASTER. MODULAR. NEXT GENERATION INTEGRATED MICROWAVE ASSEMBLIES



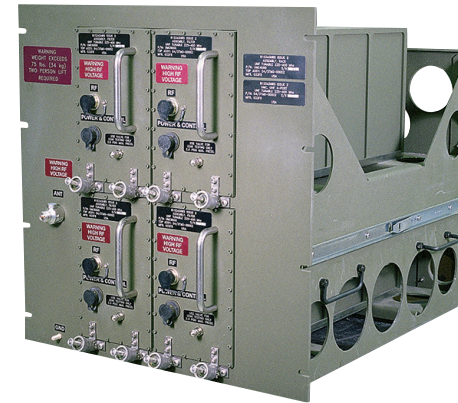
**7-Channel, 500-3000 MHz
Switched Filter Bank**
Switched Filter bank with embedded transfer
switches and multiple inputs.



2-18 GHz, Switched Filter Bank for ESM System
Preselector 8-channels 50n sec switch time.
Built in test oscillator functionality and independent IF filter



**2-18 GHz, Preselector Reconfigurable
Filter Bank for ESM receivers**
8 independent switchable channels, allowing
user to dynamically change the passband
performance on a pulse by pulse basis.



Tunable Multicoupler
• Basic 4 Port Multicoupler
• Enables 4 Transceivers to Share a Single Antenna
• 3 Pole Bandpass Filter
• 50 dB Isolation at 3 MHz Channel Spacing

MPG IS VERTICALLY INTEGRATED AND IS WELL-POSITIONED TO DEVELOP AND DELIVER CUSTOM SUBSYSTEM NEEDS. FROM ONE PIECE TEST SYSTEMS TO CUSTOM MILITARY APPLICATIONS, OUR TECHNICAL STAFF IS READY TO ENGAGE.



Digitally Controlled Tunable Rack Assemblies
• Bandpass and Bandstop Options
• Tunable Center Frequency
• Tunable Bandwidth
• Tune over Multi-octave Ranges
• Suitable for LTE and WiFi Testing



Switch Matrix Systems
• Electromechanical
• Solid State
• Non-Blocking
• Full Fan In/Out
• Highly Scalable and Modular
• Trouble-free Maintenance for Field Upgrades and Repair
• 1U/2U/3U/4U Rack Mountable Enclosures

SUBSYSTEMS



**Custom Configured
Switching Systems**
Systems are fully controlled through
controller modules with Windows based
PC and removable hard drive.



CONNECTING & PROTECTING IS WHAT WE DO



ICE2004 Referenceless Canceller

Intelligently identifies interferer signals and cancels them. Highly integrated design with extensive digital signal processing (DSP) and RF manipulation. Ideal for SIGINT & COMINT applications, aboard ships and ISR aircraft, DF (direction finding) systems and other sensitive RF systems



L-Band

4x48 Solid State Fan-Out Switch; 48x4 Solid State Fan-In Switch; 8x2 Electromechanical Switch; LCD Touch Screen; Ethernet with SNMP Protocol



ICE5200 / ICE3009 VHF/UHF Filter/Amplifier

Multi-Band, High Power, High Selectivity Half Duplex Transmit and Receive Filter/Amplifier. Reduces broadband noise in transmit mode of operation and reduces interfering signals at the transceiver's RF input in receive mode. Supports SINCARS, HAVEQUICK, SATURN waveforms. Optimized for SWaP-C

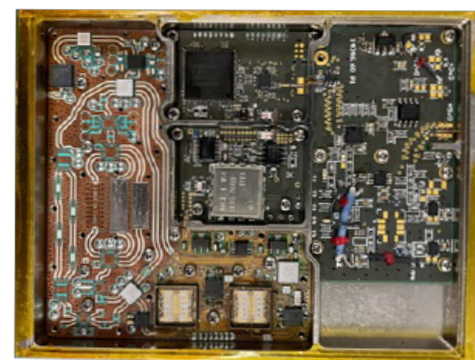


Custom Configured Systems

- Switch Matrices
- Filters, Tunable or Fixed
- Attenuators
- Amplifiers

Custom Synthesizers

- Direct to Digital Synthesizer
- 500 MHz - 26 GHz Frequency of Operation
- Constantly Adjustable Full Phase Lock Loop (PLL)



AGILE AND TUNABLE	1 MHz	BP BS	28 GHz		BW = 2% MULTI-OCTAVE
THIN FILM Q250-400	2 GHz	BP BS LP HP	18 GHz		BW = 5% MULTI-OCTAVE
LUMPED ELEMENT Q50-300	300 KHZ	BP BS LP HP	6 GHz		BW = 1% MULTI-OCTAVE
CERAMIC Q150-1,000	500 MHz	BP	5 GHz		BW = 1 - 30%
TUBULAR Q300-700	20 MHz	BP LP	20 GHz		BW = 1 - 30%
CAVITY Q500-30,000	30 MHz	BP BS	30 GHz		BW = 0.2 - 100%
SUSPENDED SUBSTRATE Q400-600	500 MHz	BP BS LP HP	50 GHz		BW = 10% MULTI-OCTAVE
WAVEGUIDE Q1,000-20,000	1 GHz	BP BS LP HP	100 GHz		BW = 0.5 - 10%
MULTIPLEXERS LUMPED ELEMENT CERAMIC CAVITY	300 KHZ	BP BS LP HP	100 GHz		BW = 1% MULTI-OCTAVE

<p>SOLID STATE PIN DIODE</p> <p>100 MHz - 18 GHz, SPDT - SP8T SWITCHING SPEED: 100 & 250 NSEC MAX. HIGH POWER OPTIONS AVAILABLE SPACE QUALIFIED OPTIONS AVAILABLE</p>	<p>L-BAND, HIGH POWER SP9T SWITCH 37 W HOT SWITCHING</p>
<p>COAXIAL</p> <p>DC - 26.5 GHz, DC - 40 GHz SPDT, DPDT, SP3T-SP14T3 ACTUATOR: FAILSAFE, NORMALLY OPEN, LATCHING SELF CUTOFF OPTIONS: INTERNAL OR EXTERNAL TERMINATIONS SPACE QUALIFIED OPTIONS AVAILABLE</p>	<p>MINIATURE MECHANICAL AND RELIANT HIGH REPEATABILITY AVAILABLE</p>
<p>WAVEGUIDE</p> <p>WR62, WR75, WR90, WR112* SPTD & DPDT LATCHING ACTUATOR *OTHER OPTIONS AVAILABLE SPACE QUALIFIED OPTIONS AVAILABLE</p>	
<p>SWITCHES ARE NORMALLY CONTROLLED VIA DC POWER, TTL, OR CANBUS MESSAGING; OTHER CONTROL MAY BE AVAILABLE UPON REQUEST.</p>	



MPG

CONNECTING & PROTECTING

a **DOVER** company



MICROWAVE PRODUCTS GROUP UNIFIES THE HERITAGE,
PRODUCT LEADERSHIP AND INNOVATION OF SIX WORLD CLASS BRANDS
TO ENABLE COMMUNICATION, PROVIDE SIGNAL CONTROL AND
TAKE COMMAND ACROSS THE SPECTRUM

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