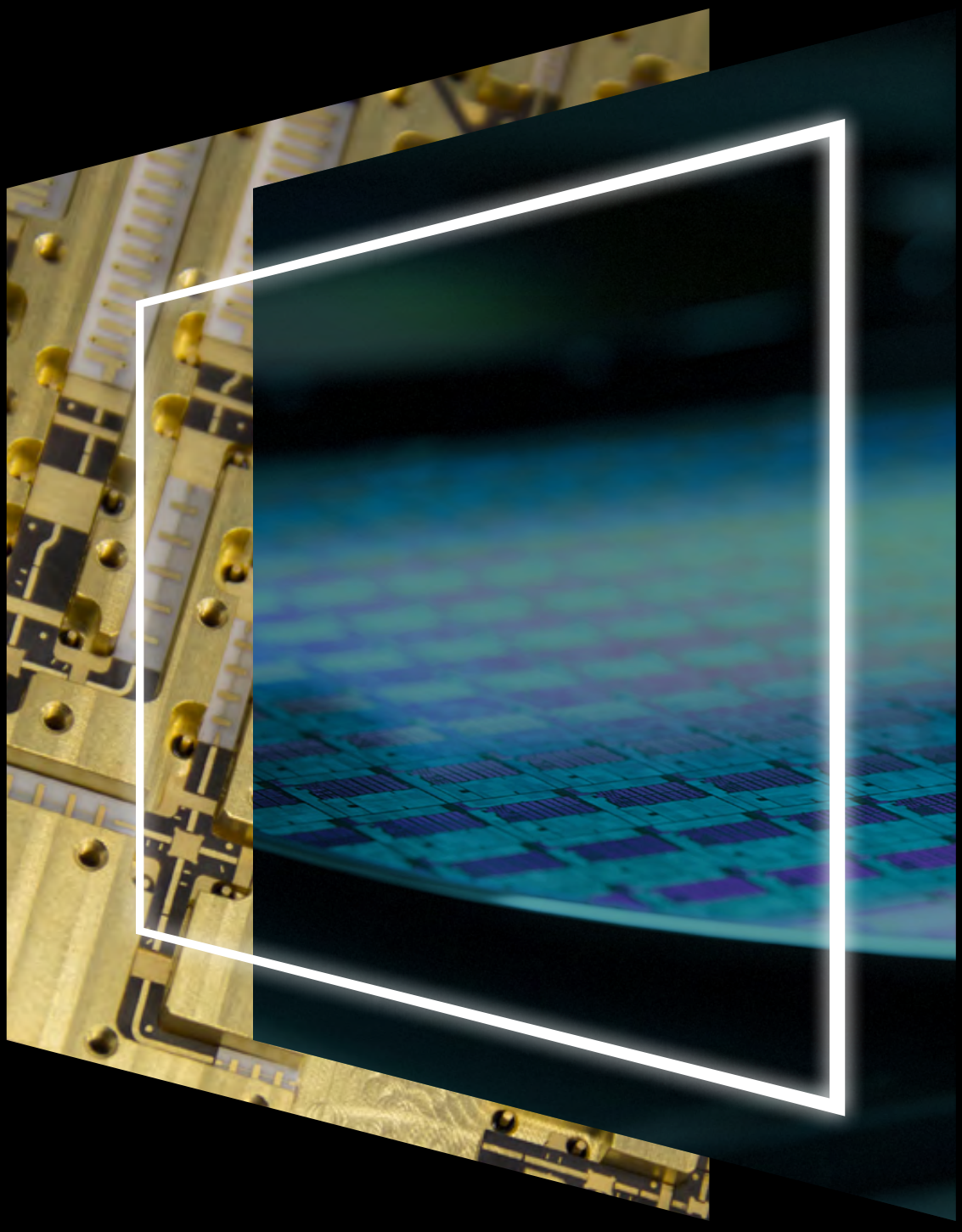
PRODUCT GUIDE

RF, MMIC, Mixed Signal Components and Assemblies

Signal Technologies Portfolio



Innovation that matters®

mrcy.com

Your high-frequency technology partner for RF, data conversion, and processing solutions.

At Mercury, we partner with our customers to develop the most advanced RF and microwave solutions, high-speed analog-to-digital conversion systems, and FPGA processing platforms that support their mission and enable them to build differentiated systems for radar, electronic warfare, signal intelligence, communications, and test/measure applications.

Our technical design competencies include broadband design, microwave frequency conversion, high-performance ADC/DAC architectures, custom FPGA implementations, custom integrated assemblies, open-architecture solutions, GaN-based amplifiers, and MMIC devices.

Leveraging strategic partnerships with leading semiconductor manufacturers, we deliver both cutting-edge commercial products and fully integrated, custom-engineered solutions designed to meet the rigorous environmental and performance demands of aerospace and defense applications in the harshest operating conditions.

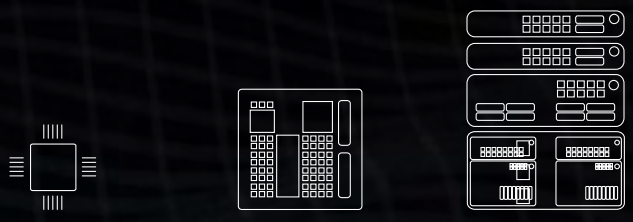
We serve critical markets including Electronic Warfare (EW), Radar, Signal Intelligence (SIGINT), Space, 5G communications, Quantum computing, and high-performance Compute applications, providing mission-critical technology that enables our customers to maintain technological superiority.

Customers rely on Mercury to push processing power to the tactical edge.

We collaborate with key semiconductor companies, such as AMD-Xilinx, Intel, and Micron, to design latest-generation commercial technologies that perform under intense conditions and in the most remote, environmentally extreme locations on Earth and in space, making them profoundly more accessible for today'smost challenging aerospace and defense missions.

From silicon to system scale, Mercury enables customers to accelerate innovation and turn data into decision superiority.

SILICON TO SYSTEMS



COMPONENTS **MODULES** **SYSTEMS**

mercury

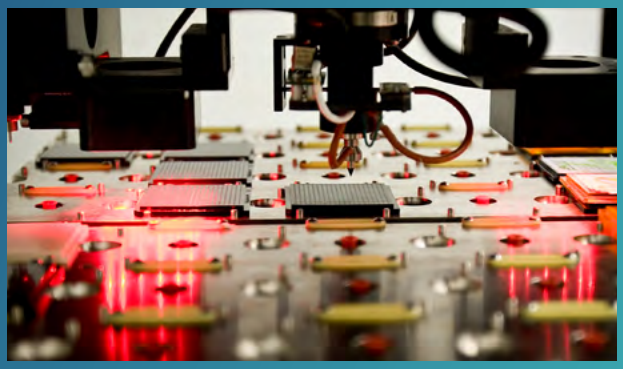
CONTENTS

Trusted Manufacturing Capabilities

AUTOMATED RF COMPONENT MANUFACTURING

With more than 200,000 square feet of RF manufacturing area, we can support the most advanced, high-volume aerospace and defense programs.

- Wire bonders
- SMT assembly
- Test setups to 110 GHz
- Epoxy dispensing/pick-and-place



TRUSTED AND SECURE FACILITIES

Mercury places an emphasis on securing our facilities, carefully managing our supply chain and manufacturing, so we can serve the aerospace and defense industry with high-assurance products for the most demanding mission-critical applications.

- Defense Microelectronics Activity (DMEA) accredited
- James S. Cogswell Outstanding Industrial Security Achievement Award
- AS9100, ISO9001, ISO10012 certified
- Environmental lab testing on-site
- Cybersecurity program based on NIST 800-171

MADE IN USA

Industy standards

- MIL-PRF-38534 Class H and Class K element evaluation
- NASA EEE-INST-002
- NASA-STD-8739.3
- MIL-STD-883
- MIL-STD-202
- MIL-DTL-28837
- IPC-J-STD-006
- IPC-J-STD-001 and -001/S
- IPC-A-600 and IPC-A-610
- Tailored/custom screening

Integrated Microwave Assemblies

CUSTOM FREQUENCY-CONVERSION SUBASSEMBLIES

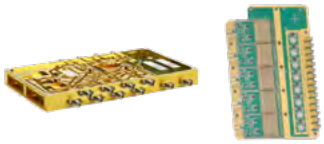
Customers count on Mercury for the design and manufacture of custom integrated microwave assemblies (IMAs), including high-performance microwave transceivers. Through substantial R&D investment and a library of building blocks, Mercury rapidly executes on the most complicated transceiver designs.

Frequency Converter Product Families:

- Block Up-Converters (BUC): Custom products available by integrating a Mercury up-converter with a Mercury SSPA
- Low Noise Blocks (LNB): Custom products available by integrating a Mercury down-converter with a Mercury LNA
- Transceivers: Custom designs by combining up/down converters with additional components such as PLL and digital control.

- **Frequency coverage 10 MHz to 110 GHz**
- **Super-heterodyne, image/LO reject and sub-harmonic topologies**
- **Automatic gain control (AGC) and built-in-test (BIT)**
- **Embedded micro-controller capability**

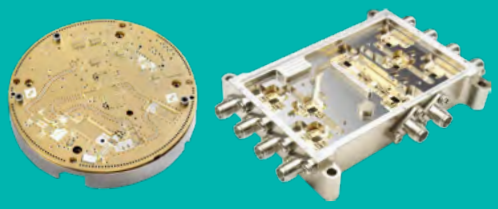
INTEGRATED SWITCH MATRICES



The portfolio of rugged, custom-designed switch matrices are available in rigid PCB construction, module-based packages, or rackmount solutions. Each switch matrix is a highly integrated, SWaP-optimized assembly consisting of an assortment of switches, filters, amplifiers, attenuators, limiters, and drivers. The result is high-speed channel selection, high isolation, high linearity, and low insertion loss.

- **From 10 MHz to 40 GHz**
- **Include position indicating, BIT circuitry, input/output power detection, switched attenuators, and on-board PC power conditioning**

FEATURED SOLUTIONS

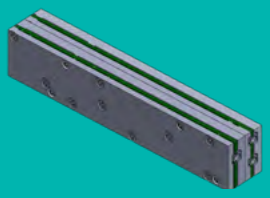


Custom IMA Solutions

Mercury invests heavily to develop cutting-edge capability in SWaP-optimized, high-performing products.

- **Frequencies to 110 GHz**
- **SWaP-optimized building blocks**
- **Advanced non-linear device modeling**
- **RF and digital integration**
- **Technology and process agnostic**
- **SMT and bare-die manufacturing**

FEATURED PRODUCTS



AM9057 & AM9058: Compact Phase Coherent Up/Down Conversion

The AM9058 is a miniature RF upconverter tuner designed to deliver high performance transmit capability in space constrained multichannel systems. Built for demanding EW, SIGINT, quantum computing, and advanced test applications, the AM9058 integrates sub octave filtering, precision gain stages, frequency conversion, power conditioning, and a flexible LO architecture that supports either independent operation or shared LO phase coherence with companion modules. Its compact, board mountable design pairs seamlessly with the AM9057 downconverter to form a tightly coupled, scalable transmit/receive chain, enabling dense, low SWaP RF architectures without sacrificing signal integrity or system responsiveness.

The AM9057 is a purpose built miniature downconverter tuner engineered for extreme space constrained multichannel applications, delivering up to 4× the channel density of legacy solutions such as the AM9018. Designed for defense, aerospace, SIGINT, quantum computing, and advanced test environments, the AM9057 integrates sub octave pre selectors, low noise pre amplifiers, frequency conversion stages, power conditioning, and a flexible LO architecture that supports either independent operation or shared LO phase coherence across channels. Its compact form factor enables dense receive arrays in platforms where SWaP C is critical, and it pairs seamlessly with the AM9058 upconverter to form a tightly coupled, modular transmit/receive chain that scales to mission specific channel counts without requiring custom hardware.

The AM9057 downconverter and AM9058 upconverter operate as a matched, phase coherent RF conversion pair, enabling compact bidirectional architectures in dense multichannel systems. Their shared LO option ensures coherent frequency translation across both receive and transmit paths, while their miniature form factors allow high performance RF front end placement directly at the sensor edge. Together, they provide a scalable, low SWaP foundation for tightly integrated EW, SIGINT, quantum computing, and test platforms requiring synchronized, high density RF channels.

MILLIMETER WAVE CONVERTERS

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	NF(dB)	IIP3 (dBm)	BANDWIDTH (MHz)	OUTPUT (GHz)	POWER CONSUMPTION (W)	PACKAGE (IN)
AM9035A	Receive	18	44	14	4	2000	4	6	3.7x3.3x0.7
AM9041	Transmit	18	44	15	0	4000	6 - 8	10	3.7x3.3x0.7
AM9040	Receive	18	50	12	0	11000	5 - 16	9	3x1.4x0.34
AM9042	Transmit	18	50	-	10	11000	5 - 16	10	3x1.4x0.34
MWA59040	Dual Channel Receive	18	50	14	1	11000	2.4 - 15.4	24	3U VPX, SOSA Aligned
010-RX184002-002	Dual Band Block Down Convert	18-26	26-40	8.5	5, 14	14000	4 to 18	-	3.5x2.5x0.63

Frequency Converters and Conditioners

MINI TUNER MODULES

Completely integrated superheterodyne tuner solutions for both receive and transmit applications that leverage Mercury's MMIC technology, yielding high performance and low SWaP.

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	NF (dB)	IIP3 (dBm)	BANDWIDTH (MHz)	OUTPUT	POWER CONSUMP (W)	PACKAGE (in)
AM3073A	A/D Driver	0.75	1.25	7	12	500	1 GHz Filtered	1	0.71 x 0.85 x 0.16
AM3269	4 Receive & 4 Transmit Signal Conditioner	2	18	7	-5	Up to 16000	2 to 18 GHz RF	9.7	2.18 x 2.5 x 0.37
AM9012	Receive	0.002	6	13	3	80	60 MHz Analog IF	4	1.44 x 2.33 x 0.26
AM9017	Receive	0.1	18	15	3	500	1 GHz Analog IF	4	1.38 x 2.69 x 0.26
AM9018	Receive	0.9	18	14	5	1000	2 GHz Analog IF	6	1.40 x 3.00 x 0.27
AM9030	Transmit	0.9	18	-	14	1000	2 GHz IF	5.5	1.40 x 3.00 x 0.27
AM9024	4 Receive & 1 Transmit	6	18	10	4	1000	3 GHz Analog IF	16.2	3.1 x 2.7 x 0.34
AM9025	Receive	2	26.5	15	1	80	60 MHz Analog IF	4	2 x 2.5 x 0.26
AM9029	Receive	1	18	14	2	2000	3.75 GHz Analog IF	6.5	5.1 x .77 x 0.26
AM9032	Receive	0.9	26.5	14	4	1000	2 GHz Analog IF	6.5	1.4 x 3.0 x 0.27
AM9035A	Receive	18	44	14	4	2000	4 GHz Analog IF	6	3.7 x 3.3 x 0.7
AM9040*	Receive	18	50	12*	0*	11000	5 to 16 GHz	9*	3.0 x 1.4 x 0.34
AM9041*	Transmit	18	44	15*	0*	4000	6 to 8 GHz	10	3.7 x 3.3 x 0.7
AM9042*	Transmit	18	50	-	10	11000	5 to 16 GHz	10	3.0 x 1.4 x 0.34
AM9057	Receive	0.9	18	14	5	1000	2 GHz Analog IF	6	4.0 x 0.75 x 0.38
AM9058	Transmit	0.9	18	-	14	1000	2 GHz IF	5.5	4.0 x 0.75 x 0.38
AM9038	2 Receive & 2 Transmit	2	18	10	4	500 / 1000	2.5 GHz or 1 GHz	24	5.98 x 3.18 x 0.32

*Data pending additional testing

OPEN ARCHITECTURE MICROWAVE TRANSCEIVERS

Our microwave OpenVPX™ and SOSA aligned transceivers provide cutting-edge performance in convenient 3U and 6U form factors and are optimized to seamlessly integrate with our line of digitizer modules. From electronic warfare to beam steering, these ruggedized microwave modules are equipped to support your toughest application.

MODEL NUMBER	DESCRIPTION	CHANNELS	RF (GHz)	IF (GHz)	GAIN (dB)	NOISE FIGURE (dB)	IP3 (dBm)	FORMAT/SIZE
RFM3202	Wideband transceiver	2 up/2 down	0.3–18	3.4–5.4	25	Up: 20/Down: 15	30 (OIP3 at max gain)	3U SOSA aligned
RFM3112	Dual Down converter	2 down	6–18	1.375–2.375	20	14 (typical)	30 (OIP3 at max gain)	3U SOSA aligned
RFM3113	Dual Up converter	2 up	6–18	1.375–2.375	20	23 (typical)	30 (OIP3 at max gain)	3U SOSA aligned
RFM3102	Wideband tuner	2 down	6–18	1.375–2.375	20	14 (typical)	30 (OIP3)	3U OpenVPX OpenRFM

FEATURED PRODUCTS

RFM3202 Wideband Microwave Transceiver

The RFM3202 high spectral density 3U OpenVPX™ microwave transceiver supports ultra-wide, high-bandwidth applications from 0.3 GHz up to 18 GHz. To maximize spectral density, this compact module offers dual channel coherent operation, utilizing two upconversion and downconversion channels.

- **Delivers 2 GHz of instantaneous bandwidth per channel**
- **Includes two upconversion channels and two downconversion channels**
- **Tunable frequency range of 0.3–18 GHz**
- **Integrated channel-independent local oscillators**
- **3U OpenVPX compliant and SOSA aligned design**
- **Built to pair with DCM3220 for a full mixed signal solution**

HIGH-PERFORMANCE MICROWAVE CONVERTERS

Standard microwave converter products offer RF performance up to 40 GHz with a 2 GHz IBW. A modular design approach enables rapid customization and is optimized for demanding SIGINT/ELINT applications.

- **Frequencies up to 50 GHz**
- **IBW up to 2 GHz**
- **Agile, tunable IF available**
- **Ethernet control interfaces**

MODEL	DESCRIPTION	MAX TUNE FREQ (GHz)	FREQ EXTENSION OPTIONS (GHz)	MAX IBW (GHz)	TUNING SPEED	AVAILABLE FORM FACTORS
TAC-3290	Single- or Dual-Channel Agile IF Down Converter	18	40	2	50 µS	Low SWaP
TAC-3294	Single- or Dual-Channel Agile IF Down Converter	26.5	50	2	50 µS	Low SWaP
RFT-3100, RFX-3100	Fixed IF Down Converter	18	26.5, 40	2	600 µS	Rackmount, half ATR
RFT-3200, RFX-3200	Agile IF Down Converter	18	26.5, 40	2	600 µS	Rackmount, half ATR
RFT-4100, RFX-4100	Fixed IF Up Converter	18	26.5, 40	2	600 µS	Rackmount, half ATR
RFT-4200, RFX-4200	Agile IF Up Converter	18	26.5, 40	2	600 µS	Rackmount, half ATR
RFT-5100, RFX-5100	Fixed IF Up/Down converter	18	26.5, 40	2	600 µS	Rackmount, half ATR
RFT-5200, RFX-5200	Agile IF Up/Down converter	18	26.5, 40	2	600 µS	Rackmount, half ATR

Note: 40 GHz operation and above requires frequency extension option

IF-TO-IF CONVERTERS

Mercury IF-to-IF converter products have been created to solve the limitation caused by fixed, static IFs for products including signal recorders, digitizers, signal analyzers, or waveform generators.

MODEL	INPUT FREQ RANGE	OUTPUT FREQ RANGE	SELECTABLE BW
IFAT-2000	50 MHz–2000 MHz	50 MHz–2000 MHz	5 BWs, 50–1000 MHz
IFAT-2200	10 MHz–2000 MHz	10 MHz–2000 MHz	8 BWs, 10–1000 MHz
IFAT-2400	1 MHz–2000 MHz	1 MHz–2000 MHz	13 BWs, 0.1–1000 MHz
IFAT-8000	50 MHz–8 GHz	50 MHz–8 GHz	5 BWs, 50–1000 MHz
IFAT-8400	1 MHz–8 GHz	1 MHz–8 GHz	13 BWs, 0.1–1000 MHz

Digitization and Signal Processing

SIGNAL PROCESSING AND OPEN ARCHITECTURE, MIXED-SIGNAL SOLUTIONS

Mercury's digitization/FPGA processing solutions enable the real-time digitization and processing of complex signals. We integrate the most advanced ADC, DAC, RFSoC, and FPGA technology in 3U and 6U OpenVPX™ and SOSA modules to create a product portfolio to support applications such as electronic warfare, spectrum monitoring, and digital beam steering.

MODEL NUMBER	PROCESSOR	MEMORY	ADC CHANNELS	DAC CHANNELS	FORMAT/SIZE
DRF2380	AMD Versal RF VR1652	16GB LPDDR5	4 14-bit, 32 GSPS	4 14-bit, 16 GSPS	3.5" x 2.5" module
DRF4380L	AMD Versal RF VR1652	16GB LPDDR5	4 14-bit, 32 GSPS	4 14-bit, 16 GSPS	6.38" x 6.37" x 1.7"
DRF4381L	AMD Versal RF VR1652	16GB LPDDR5	4 14-bit, 32 GSPS	4 14-bit, 16 GSPS	6.4" x 2.8" x 1"
DRF5380	AMD Versal RF VR1652	16GB LPDDR5	4 14-bit, 32 GSPS	4 14-bit, 16 GSPS	3U OpenVPX, SOSA Aligned
DRF2270	Altera Agilex 9 AGRW027	16GB DDR4	8 10-bit, 64 GSPS	8 10-bit, 64 GSPS	4.75" x 2.6" module
DRF5270	Altera Agilex 9 AGRW027	16GB DDR4	8 10-bit, 64 GSPS	8 10-bit, 64 GSPS	3U OpenVPX, SOSA Aligned
DRF2580	Altera Agilex 9 AGRW014	16GB DDR4	4 10-bit, 64 GSPS	4 10-bit, 64 GSPS	3.5" x 2.5" module
DRF4580L	Altera Agilex 9 AGRW014	16GB DDR4	4 10-bit, 64 GSPS	4 10-bit, 64 GSPS	6.38" x 6.37" x 1.7"
DRF5580	Altera Agilex 9 AGRW014	16GB DDR4	4 10-bit, 64 GSPS	4 10-bit, 64 GSPS	3U OpenVPX, SOSA Aligned
DRF4581L	Altera Agilex 9 AGRW014	16GB DDR4	4 10-bit, 64 GSPS	4 10-bit, 64 GSPS	6.4" x 2.8" x 1"
DRF3182	Altera Stratix® 10 AX SoC FPGA	4 GB DDR4	4 10-bit, 51.2 GSPS	4 10-bit, 51.2 GSPS	3U VPX Open VPX (VITA 65)
6003	Zynq® UltraScale+™ RFSoC Gen 3	16 GB DDR4	8 14-bit, 5.0 GSPS	8 14-bit, 9.85 GSPS	2.5 x 4 Inch Module
5553	Zynq® UltraScale+™ RFSoC Gen 3	16 GB DDR4	8 14-bit, 5.0 GSPS	8 14-bit, 9.85 GSPS	3U OpenVPX, SOSA aligned
6353	Zynq® UltraScale+™ RFSoC Gen 3	16 GB DDR4	8 14-bit, 5.0 GSPS	8 14-bit, 9.85 GSPS	Small Form Factor
7053	Zynq® UltraScale+™ RFSoC Gen 3	16 GB DDR4	8 14-bit, 5.0 GSPS	8 14-bit, 9.85 GSPS	PCIe
6001	Zynq® UltraScale+™ RFSoC Gen 1	8GB DDR4	8 12-bit, 4.0 GSPS	8 14-bit, 6.4 GSPS	2.5 x 4 Inch Module
5550	Zynq® UltraScale+™ RFSoC Gen 1	8GB DDR4	8 12-bit, 4.0 GSPS	8 14-bit, 6.4 GSPS	3U OpenVPX, SOSA aligned
6350	Zynq® UltraScale+™ RFSoC Gen 1	8GB DDR4	8 12-bit, 4.0 GSPS	8 14-bit, 6.4 GSPS	Small Form Factor
7050	Zynq® UltraScale+™ RFSoC Gen 1	8GB DDR4	8 12-bit, 4.0 GSPS	8 14-bit, 6.4 GSPS	PCIe
71141A	Kintex® UltraScale+™	5 GB DDR4	1 12-bit, 6.4 GSPS	2 14-bit, 6.4 GSPS	XMC
54141A	Kintex® UltraScale+™	5 GB DDR4	1 12-bit, 6.4 GSPS	2 14-bit, 6.4 GSPS	3U OpenVPX (VITA 65)
58141A	Kintex® UltraScale+™	5 GB DDR4	1 12-bit, 6.4 GSPS	2 14-bit, 6.4 GSPS	6U OpenVPX (VITA 65)
DCM3220	Virtex® UltraScale+™ VU7P FPGA	8 GB DDR4	2 12-bit, 6.4 GSPS	2 12-bit, 6.4 GSPS	3U OpenVPX (VITA 65)
DCM6222	2 Virtex® UltraScale+™ VU9P FPGA	20 GB DDR4	2 12-bit, 6.4 GSPS	2 12-bit, 6.4 GSPS	6U OpenVPX (VITA 65)
DCM6112	3 Kintex® UltraScale™	16 GB DDR4	4 12-bit, 3.2 GSPS	4 12-bit, 3.2 GSPS	6U OpenVPX (VITA 65)
DCM6212	3 Kintex® UltraScale™	16 GB DDR4	2 12-bit, 6.4 GSPS	2 12-bit, 6.4 GSPS	6U OpenVPX (VITA 65)

FPGA PROCESSORS

MODEL NUMBER	FORM FACTOR	LVDS	GIGABIT SERIAL	SERIAL FPDP	OPTICAL	MEZZANINE	MEMORY TYPE	MEMORY SIZE	FPGA TYPE	SOSA
5560	3U VPX	Yes	Yes	-	Yes	-	DDR4	16 GB	Versal HBM ACAP	Yes
SCFE6931	6U VPX	Yes	Yes	-	Yes	-	DDR4	48 GB	Versal AI ACAP	Yes
SCFE6933	6U SpaceVPX	Yes	Yes	-	Yes	-	DDR4	24 GB	Versal AI ACAP	-
SCFE6921	6U VPX	Yes	Yes	-	Yes	-	DDR4	40 GB	Virtex UltraScale+	-
SCFE6125	6U VPX	Yes	Yes	-	Yes	-	DDR4	20 GB	Virtex UltraScale+	-
SCFE6120	6U VPX	Yes	Yes	-	-	FOMC+	DDR4	20 GB	Virtex UltraScale+	-
SCFE3920	3U VPX	Yes	Yes	-	Yes	-	DDR4	-	Virtex UltraScale+	-
SCFE3820	3U VPX	Yes	Yes	-	-	Custom	DDR4	12 GB	Zynq Ultrascale+	-

SYNTHESIZERS

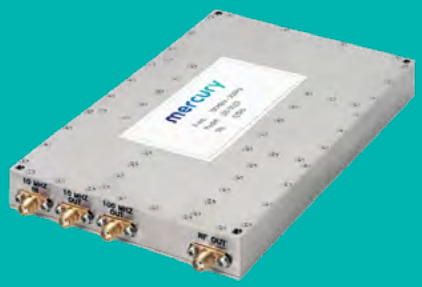
MODEL NUMBER	DESCRIPTION	FREQ RANGE (GHZ)	TUNING RESOLUTION (HZ)	POWER CONSUMPTION (W)	SIZE
DS3020	Synthesizer	0.1 - 20	1	10	6.5" x 4" x 0.7"

FEATURED PRODUCTS

DS3020 - Ultra-low Phase Noise Synthesizer

Mercury's DS-3020 series is a state-of-the-art, DDS-based synthesizer family tuning continuously from 100 MHz to 20 GHz, in 1 Hz steps. Industry leading low phase noise and spurious performance meet and exceed requirements of the most demanding test equipment, receivers, and carrier transmitters.

Tuning is accomplished via 4-wire SPI, RS-232 SCPI commands or USB tuning. The synthesizer includes an internal reference which will auto-lock to an external 10 MHz reference when present.

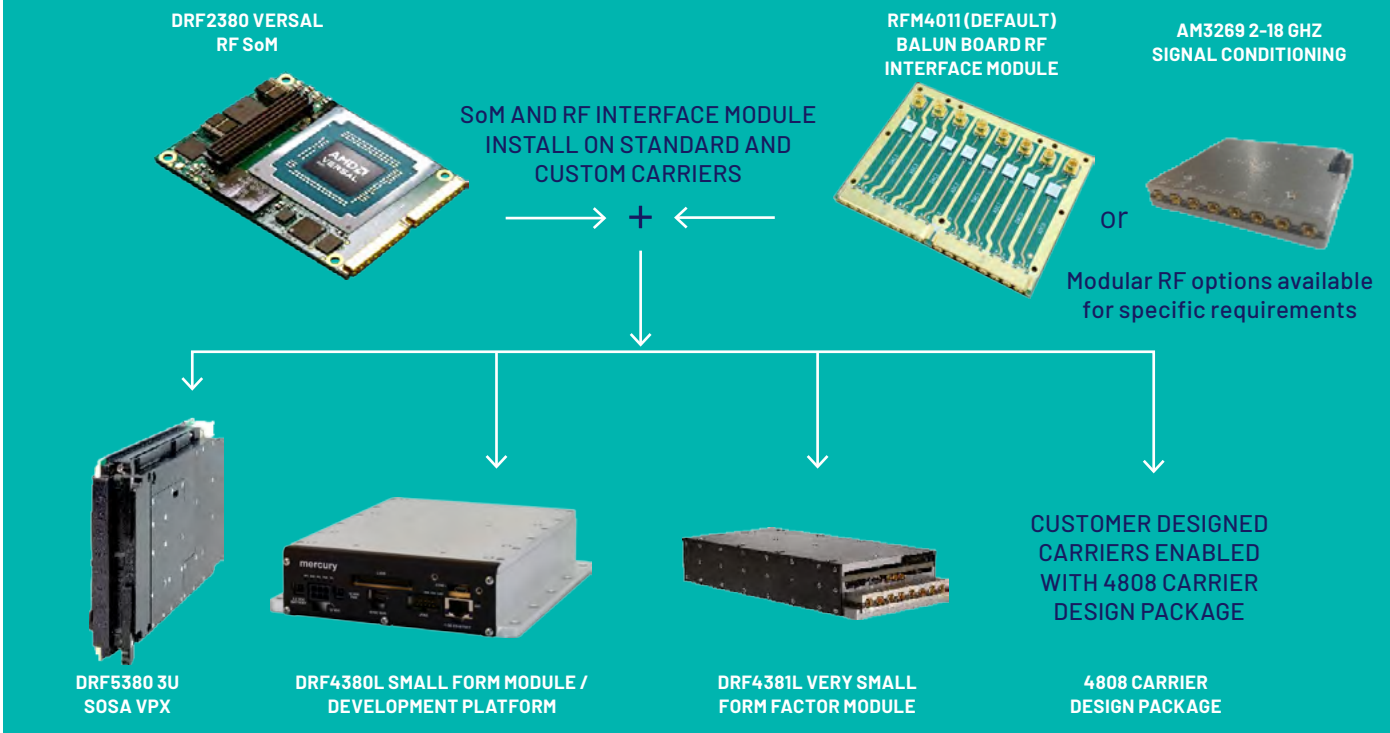


- 100 MHz to 20 GHz in 1 Hz steps
- State-of-the-art phase noise
- 10W power consumption
- Auto-sensing reference clock
- -30° to +70° C temperature range
- SPI, SCPI, and USB control – command-set and GUI control

CLOCK GENERATION AND DISTRIBUTION MODULES

MODEL NUMBER	DESCRIPTION	FREQ MAX (GHz)	NUMBER OF BANKS	OUTPUTS PER BANK	FORMAT/SIZE
CLK3002	Coherent clock module	4	3	6	3U OpenVPX
5503	Sync & distribution amplifier	5	1	4	3U OpenVPX (VITA 65) SOSA aligned
5394	Clock generator	2	1	4	3U OpenVPX (VITA 65)
7894	Clock generator	2	1	4	PCIe
5292	Sync & distribution amplifier	2	1	4	3U OpenVPX (VITA 65)
5894	Clock generator	2	1	4	6U OpenVPX (VITA 65)

VERSAL RF PRODUCT FAMILY ARCHITECTURE



RF System-in-package Solution

DIRECT RF PROCESSING AT CHIP SCALE—64 GSPS

Mercury's latest system-in-package devices are designed, developed, and manufactured onshore, and provide SWaP-optimized direct digitization and high-speed data processing. RF SiP solutions can be built to fit the needs of the mission with FPGAs, high-speed data converters, and integrated power and memory.

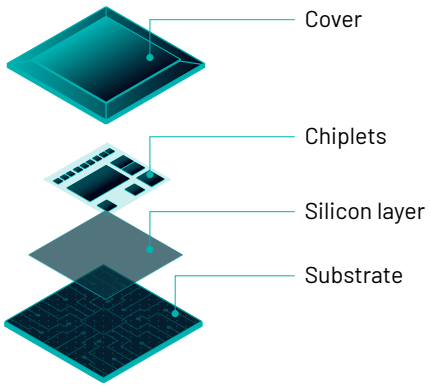
2.5D heterogeneous integration (HI) allows the designer to combine chiplets to create an optimal solution. Our latest RF SiP solutions include:

- U.S. design and manufacturing
- AI Core with Xilinx® Versal® technology
- Ultra-fast data conversion rates of 64 GSPS with Jariet technology
- On-chip memory and power management
- Flexible design for required mix of CPUs, GPUs, and FPGAs
- Combined digital processing chain with transceivers and ADC/DAC components using a single SiP

BENEFITS OF A CHIPLET-BASED ARCHITECTURE

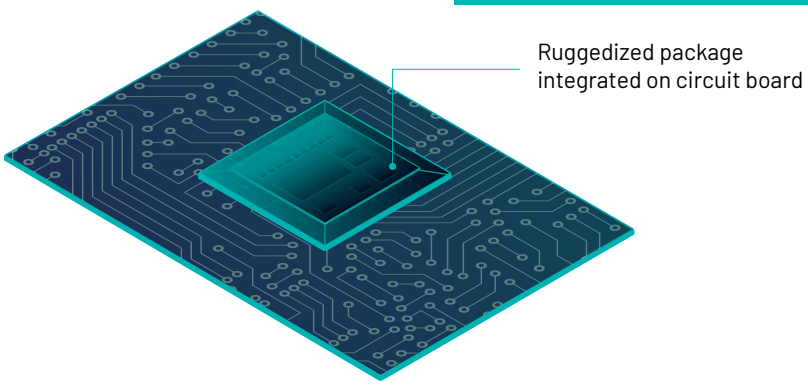
Chiplets are a generational advancement that decrease design cost for defense programs, compared to legacy approaches.

- Reduces design timeline
- Lowers design and production costs compared to legacy monolithic ASIC technology
- Program benefits from commercial designs through re-use of chiplets
- Meets pressing DoD missions such as EW, radar, security, and sensor processing
- Reduces physical size by up to 70%



80%
Reduction in board size

100%
Increase in chip-to-chip communication speed

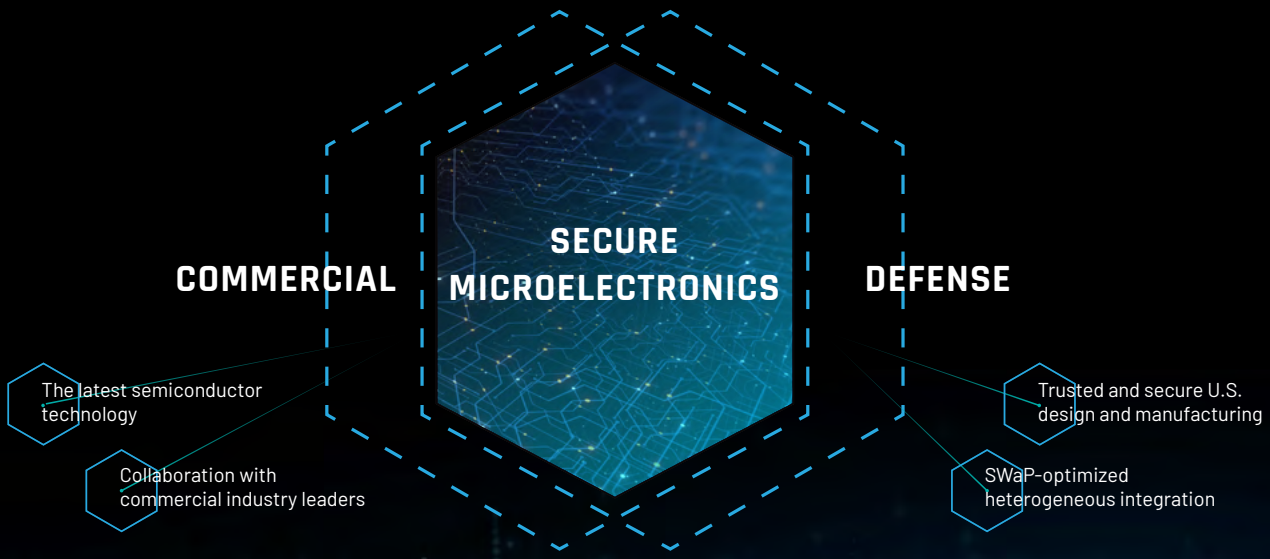


CHIP-SCALE TECHNOLOGY

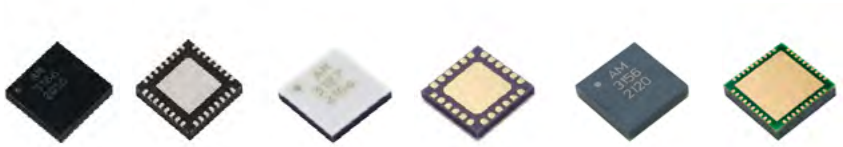
Deploy the latest commercially-developed technology to the tactical edge without compromising on security or application-specific performance.

By partnering with leaders in the semiconductor industry, Mercury takes advanced, commercial technology and brings the design, development, and manufacturing to U.S.-based facilities. Our DMEA-accredited facility adapts each SiP with the necessary chiplets to best fit the mission needs and the agility to move at the speed of technology.

GAME-CHANGING SEMICONDUCTOR TECHNOLOGY PURPOSE-BUILT FOR AEROSPACE AND DEFENSE



MMIC Devices



MMIC FILTERS

Mercury has a wide offering of filters, tunable filters, and switched filter banks. A selection of products is included below. See our website for full product line details.

PART NUMBER	LOW CUTOFF FREQ (MHz)	HIGH CUTOFF FREQ (MHz)	INSERTION LOSS (dBm)	REJECTION (dB)	BANDWIDTH LOW (MHz)	PACKAGE (mm)	FUNCTION
BANDPASS FILTERS							
AM3155	20	550	3	50	Adjustable	13.5 x 20	Digitally Tunable Bandpass
AM3172-M	20	8,000	5	60	Adjustable	61 x 53.3 Module	Digitally Tunable Bandpass Filter Module
AM3090	100	450	3	40	Adjustable	4 x 8 QFN	Digitally Tunable, Bypassable
AM3098	100	1,200	3	45	Adjustable	4 x 8 QFN	Digitally Tunable, Bypassable
AM3023B	100	6,000	7	40	60	20.5 x 20.5 x 3.30	Switched Sub-Octave Bank with Bypassable Amp
AM3024B	100	6,000	10	70	60	20.5 x 19.0 x 4.0	Switched Sub-Octave Bank with Bypassable Amp
AM3060	320	6,500	4	60	180	12.5 QFN	Digitally Tunable, with Bypassable Amp
AM3102	330	1,200	2.5	40	Adjustable	4 x 6 QFN	Digitally Tunable
AM3025A	400	6,000	6	40	230	9 QFN	Switched Sub-Octave Filter Bank
AM3152	400	8,000	4.5	50	Adjustable	6 QFN	Digitally Tunable, Smaller Footprint
AM3156	400	8,000	4.5	50	Adjustable	10 QFN	Digitally Tunable, Integrated Passives
AM3056	750	1,250	2	50	500	5 QFN	Passive IF Filter
AM3232	750	1,250	2	50	500	3 QFN	Passive IF Filter; Adjustable Center Freq
AM3103	1,000	3,000	3	40	Adjustable	4 x 6 QFN	Digitally Tunable
AM3064	1,000	6,500	3	50	Adjustable	6 QFN	Digitally Tunable
AM3055	1,500	2,500	2.5	50	1000	5 QFN	Passive IF Filter
AM3231	1,500	2,500	2.2	40	1000	3 QFN	Passive IF Filter, Adjustable Center Freq
AM3134	2,000	4,500	9	50	Analog Adjustable	5 QFN	Analog Tunable
AM3215	2.000	18,000	7.5	50	2000	9 QFN	Preselector Filter Bank
AM3089	2,000	18,000	8	40	Analog Adjustable	10 QFN	Analog Tunable Switched Filter Bank
AM3163	2,000	18,000	8	50	Adjustable	6 QFN	Digitally Tunable Filter Bank
AM3195	2,000	18,000	+6 Gain	60	Adjustable	6 QFN	Amplified Digitally Tunable Suboctave Filter Bank
AM3188	2,500	3,500	3	50	1000	4 QFN	Passive IF Filter
AM3104	2,500	6,500	2.5	40	Adjustable	4 x 6 QFN	Digitally Tunable
AM3236	2,750	4,750	3	50	2000	3 QFN	Passive IF Filter
AM3045	3,000	6,000	1	40	-	4 QFN	Digitally Tunable, Constant 1 GHz
AM3187	3,250	4,250	3	50	1000	4 QFN	Passive IF Filter
AM3135	3,500	9,000	9	50	Analog Adjustable	5 QFN	Digitally Tunable
AM3257	4,000	20,000	5	50	2000	5 QFN	Switched Sub-Octave Filter Bank
AM3227	5,000	20,000	6	45	2000	5 QFN	Digitally Tunable Sub-Octave Filter Bank
AM3065	6,000	12,000	4	40	Adjustable	4 x 6 QFN	Digitally Tunable
AM3063	6,000	18,000	4	40	Adjustable	6 QFN	Digitally Tunable
AM3275	6,000	18,000	6	40	3000	5 QFN	Digitally Tunable
AM3153	6,000	26,500	10	50	2700	5 QFN	Digitally Tunable
AM3186	6,000	26,500	6	50	3000	5 QFN	Switched Sub-Octave Filter Bank
AM3043	6,500	17,000	6	35	-	3 QFN	Digitally Tunable
AM3136	8,000	19,000	9	50	Analog Adjustable	5 QFN	Analog Tunable
AM3235	8,000	12,000	3	50	4000	3 QFN	Passive X-Band Filter
AM3335	8,000	12,000	3	50	4000	3 QFN	Passive X-Band Filter

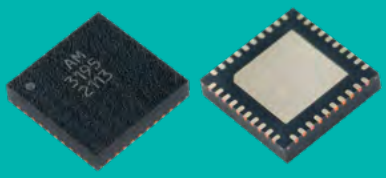
MMIC FILTERS *(continued)*

PART NUMBER	LOW CUTOFF FREQ (MHz)	HIGH CUTOFF FREQ (MHz)	INSERTION LOSS (dBm)	REJECTION (dB)	BANDWIDTH LOW (MHz)	PACKAGE (mm)	FUNCTION
BANDPASS FILTERS							
AM3230	8,500	9,500	4.2	55	1000	4 QFN	Passive IF Filter
AM3189	9,000	10,000	4	50	1000	4 QFN	Passive IF Filter
AM3255A	10,000	20,000	8	50	2000	9 QFN	Preselector Filter Bank
AM3066	12,000	26,500	5	40	Adjustable	6 QFN	Digitally Tunable
LOW-PASS FILTERS							
AM3150	30	550	1.5	50	-	5 QFN	Digitally Tunable , Internal Control Filtering
AM3264	103	191	0.75	30	-	4 QFN	Analog Tunable, Dual Band
AM3034	150	450	1	40	-	4 QFN	Digitally Tunable, 16 States
AM3266	177	344	0.75	30	-	4 QFN	Analog Tunable, Dual Band
AM3268	288	578	0.5	30	-	4 QFN	Analog Tunable, Dual Band
AM3035	500	1,200	1	40	-	4 QFN	Digitally Tunable, 16 States
AM3029	1,500	3,000	1	50	-	4 QFN	Digitally Tunable, 16 States
AM3030	3,500	6,500	1	45	-	4 QFN	Digitally Tunable, 16 States
AM3107	6,000	12,000	2	45	-	4 QFN	Digitally Tunable, 16 States
AM3046	7,000	7,000	1	50	-	4 QFN	Passive Filter, High Stopband Rejection
AM3039	9,000	18,000	1	50	-	4 QFN	Digitally Tunable, 32 States
AM3276	12,000	12,000	1.5	50	-	3 QFN	Passive LPF, High Stopband Rejection
AM3277	15,800	15,800	1.5	50	-	3 QFN	Passive LPF, High Stopband Rejection
AM3228	18,000	18,000	1.2	45	-	3 QFN	Passive LPF, High Stopband Rejection
AM3110	18,000	26,500	2.5	40	-	4 QFN	Digitally Tunable, 16 States

FEATURED PRODUCT

AM3195

AM3195 is a wideband pre-selector filter bank in the 2 to 18 GHz frequency range. The device combines sub-octave filtering and LNAs to set a low noise figure and gain pedestal while maintaining high 2nd order linearity. The AM3195 dramatically reduces the footprint to a 6mm QFN to enable low SWaP applications.



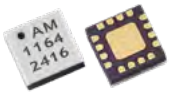
MMIC FILTERS *(continued)*

PART NUMBER	LOW CUTOFF FREQ (MHz)	HIGH CUTOFF FREQ (MHz)	INSERTION LOSS (dBm)	REJECTION (dB)	BANDWIDTH LOW (MHz)	PACKAGE (mm)	FUNCTION
				HIGH-PASS FILTERS			
AM3151	20	320	2	50	-	6 QFN	Digitally Tunable , Internal Control Filtering
AM3263	90	167	1	25	-	4 QFN	Analog Tunable, Dual Band
AM3033	100	225	1	50	-	4 QFN	Digitally Tunable, 16 States
AM3265	159	299	1	25	-	4 QFN	Analog Tunable, Dual Band
AM3267	269	486	1	25	-	4 QFN	Analog Tunable, Dual Band
AM3036	330	700	1	50	-	4 QFN	Digitally Tunable, 16 States
AM3031	1,000	1,800	1	50	-	4 QFN	Digitally Tunable, 16 States
AM3032	2,500	4,500	1	50	-	4 QFN	Digitally Tunable, 16 States
AM3041	6,000	10,000	1	50	-	4 QFN	Digitally Tunable, 16 States
AM3108	12,000	18,000	5	50	-	4 QFN	Digitally Tunable, 32 States
AM3109	18,000	26,500	7	40	-	4 QFN	Digitally Tunable, 32 States
				BAND STOP FILTERS			
AM3137	800	2,000	2	30	20%	4 QFN	Analog Tunable
AM3129	800	6,000	4	30	20%	9 QFN	Switched Analog Tunable
AM3138	1,300	3,250	2.3	35	20%	4 QFN	Analog Tunable
AM3139	2,500	6,000	2.3	40	20%	4 QFN	Analog Tunable
AM3169	5,500	10,000	1	40	20%	5 QFN	Analog Tunable, Dual Band
AM3170	6,000	18,000	5	40	20%	10 QFN	Switched Analog Tunable Notch Bank
AM3166	9,000	11,000	1	35	20%	5 QFN	Analog Tunable, Dual Band
AM3167	11,000	13,000	1	40	20%	5 QFN	Analog Tunable, Dual Band
AM3168	13,000	19	1	40	20%	5 QFN	Analog Tunable, Dual Band

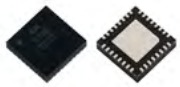
* Data pending additional testing

FEATURED MMIC AMPLIFIERS

Mercury offers a wide variety of Broadband RF amplifiers including low-noise, bypassable, and bidirectional gain blocks in standard QFN and DFN packaging.







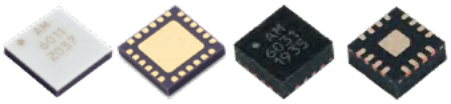

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	GAIN (dB)	NF (dB)	OIP3 (dBm)	P1dB (dBm)	SUPPLY (+V)	PACKAGE (mm)	NOTES
BYPASSABLE / BIDIRECTIONAL AMPLIFIERS										
AM1081	Bypassable Gain Block	0	8	17	2.5	35	20	5	3 x 3 QFN; 4 x 4 QFN	-
AM1065	Bypassable Gain Block	0	8	20	2.5	32	17	5	3 x 3 QFN, 4 x 4 QFN	Positive Gain Slope
AM1073	Bidirectional/Bypassable Amp	0	8	15	2.5	27	14	3.3	4 x 4 QFN	Bidirectional
AM1141	Bypassable Gain Block	1.7	18	12	2.5	26	14	3.3	3 x 3 QFN	Low noise
AM1101	Bypassable Amplifier	2	26	8	3.5	22	10	3.3	3 x 3 QFN	Broadband Flat Gain
AM1067	Bypassable Gain Block	5	20	20	3.5	27	14	3.3	4 x 4 QFN	-
AM1077	Bypassable with Off State	5	20	20	4	25	14	3.3	4 x 4 QFN	Bypass and Isolation States
DRIVER AMPLIFIERS										
AM1194	Broadband Driver Amplifier	0	28	11.4	4.2	35.5	25.3	10	5 x 5 QFN	Broadband, Medium Power
AM1137	Broadband Driver Amplifier	0.01	18	20	4.1	29	19	4.2	3 x 3 QFN	-
AM1122	Driver Amplifier	0.02	6	15	4.5	40	26	8	3 x 3 QFN	High P1dB, High IP2/IP3
AM1127	ADC Driver Amplifier	0.2	6	19	3.5	39	23	3-6	3 x 3 QFN	+60 dBm OIP2
AM1129	Driver Amplifier	0	6	11	2.5	40	24	6	3 x 3 QFN	High P1dB, High IP2/IP3
AM1142	Driver Amplifier	0.02	18	16	2.4	31	21	5	3 x 3 QFN	Broadband, High P1dB
AM1143	Driver Amplifier	0.02	6	20	1.5	40	27	8	3 x 3 QFN	High P1dB, High IP2/IP3
AM1193	Driver Amplifier	0.02	6	15	2	40	30	12	4 x 4 QFN	High P1dB
AM1136	Driver Amplifier	1.4	20	21	3.5	29	20	3.3	3 x 3 QFN	High Gain
AM1111	Gain Block	2	18	15	2.5	31	21	5.0	3 x 3 QFN	Driver Amplifier
AM1302	Limiting Amp Module	2	18	45	3	25	15	3.5	23.9 x 51.5 x 12.7	Psat variation <3dB
AM1053	Driver Amplifier	5	20	20	2.5	25	16	3.3	3 x 3 QFN	Internal DC Blocking Caps
AM1082	Driver Amplifier	5	17	22	3	31	20	5	3 x 3 QFN	-
AM1095	Gain Block	6	22.25	18	3.5	25	19	4.8	3 x 3 QFN	Flat Gain
AM1157	Driver Amplifier	6	26.5	22	3	30	22	4	3 x 3 QFN	Broadband
AM1173	Driver Amplifier	6	18	12	3.9	38	29.5	9	5 x 5 QFN	High P1dB, High PAE
AM1175	Driver Amplifier	6	18	21	3.7	35	25	5	4 x 4 QFN	High P1dB, High PAE
AM1168-D	Driver Amplifier	15	40	18	3.6	31	20	5	-	Bare Die; 40 GHz
AM1168	Driver Amplifier	15	35	18	3.2	30	20	5	4 x 4 QFN	High Frequency
AM1144	Low-Noise Amplifier	17	40	12	3.5	27	16.4	3.3	3 x 3 QFN	40 GHz LNA in a QFN Package
AM1172-D	Driver Amplifier	18	50	17.5	3.4	29.5	18.5	5	-	Bare Die; 50 GHz

FEATURED MMIC FILTERS *(continued)*

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	GAIN (dB)	NF (dB)	OIP3 (dBm)	P1dB (dBm)	SUPPLY (+V)	PACKAGE (mm)	NOTES
LOW NOISE AMPLIFIERS										
AM1016A	Gain Block	0.02	6	15	2.5	30	18	3.3	3 x 3 QFN	Flat Gain Response, Low NF
AM1016B	Gain Block	0.02	6	14	2.3	33	17	3.3	3 x 3 QFN	Flat Gain Response, Low NF
AM1018A	Gain Block	0.02	6	13	3	35	18	3.3	3 x 3 QFN	
AM1018B	Gain Block	0.02	6	13	3	35	22	5	3 x 3 QFN	High 1dB Compression Point
AM1018C	Gain Block	0.02	6	13	2.7	36	21	5	3 x 3 QFN	High Linearity
AM1025B	Gain Block	0.02	3	13	3.8	40	26	8	3 x 3 QFN	
AM1031C	Gain Block	0.02	8	13	2.2	32	17	3.3	3 x 3 QFN	Low Noise
AM1063	Gain Block	0	10	15	2.5	30	18	5	1.3 x 2 DFN; 3 x 3 QFN	Low Noise Miniature Gain Block
AM1064	Gain Block	0	8	21	2	32	18	5	1.3 x 2 DFN; 3 x 3 QFN	Low Noise Miniature Gain Block
AM1070	Broadband Gain Block	0	18	12	3	27	15	3.3	1.3 x 2 DFN; 3 x 3 QFN	DC Coupled, High Dynamic Range
AM1071	Broadband Gain Block	0	18	12	3.5	30	16	5	1.3 x 2 DFN; 3 x 3 QFN	DC Coupled, High Dynamic Range
AM1084	Gain Block	0	6	16	2.3	37	21	5	1.3 x 2 DFN; 3 x 3 QFN	High Linearity
AM1085	Gain Block	0	6	16	2.3	35	20	5	1.3 x 2 DFN; 3 x 3 QFN	High Linearity, Flat OIP3
AM1090	Miniature Gain Block	0	6	20	2.1	35	25	8	1.3 x 2 DFN; 3 x 3 QFN	High 1dB Compression Point
AM1099	Gain Block	26	31	15	3.6	25	13	3.3	3 x 3 QFN	Positive Gain Slope
AM1100	Low Noise Amplifier	2	26.5	11.5	2.2	23	12	3.3	3 x 3 QFN	Broadband Low Noise
AM1100-D	Low Noise Amplifier	2	26.5	11	2.1	22	12	3.3	-	Bare Die
AM1102	Low-Noise Amplifier	0	22	14	2	26	15	3.3	3 x 3 QFN	Broadband Flat Gain
AM1109	Broadband LNA	2	20	14	2	30	16	3.3	3 x 3 QFN	Flat Gain
AM1116	Low-Noise Gain Block	0.02	6	15	2	31	17	3.3	1.3 x 2 DFN; 3 x 3 QFN	High OIP3
AM1134	Low-Noise Gain Block	6	26	16	2	25	15	3.3	3 x 3 QFN	Broadband, AC Coupled
AM1160	Low Noise Amplifier	1.2	18	16.4	1.9	31	19.5	5	3 x 3 QFN	Broadband Flat Gain
AM1162-D	Low Noise Amplifier	24	40	21	2.1	21	11	5	-	Bare Die, Broadband LNA
AM1163	Mini Low-Noise Amplifier	0	10	15	2	30	20	5	1.3 x 2 DFN; 3 x 3 QFN	Positive Gain Response
AM1164	Mini Low-Noise Amplifier	0	8	21	1.5	33	20	5	1.3 x 2 DFN; 3 x 3 QFN	Flat Gain Response
GAIN EQUALIZING AMPLIFIERS										
AM1110	Gain Equalizing	2	18	14	4	27	17	3.3	3 x 3 QFN	Broadband Gain Equalizing
AM1113	Gain Equalizing	2	18	12	3.5	30	17	3.3	3 x 3 QFN	Broadband Gain Equalizing
AM1114	Gain Equalizing	2	18	10	3.5	28	17	3.3	3 x 3 QFN	Broadband Gain Equalizing
AM1145	Variable-Gain Slope	2	18	9	4	28	16	3.3	3 x 3 QFN	Digitally Controlled +1 dB to +3 dB
AM1147	Gain Equalizing	6	26.5	16	3	24	12	3.3	3 x 3 QFN	Broadband Gain Equalizing
AM1147-D	Gain Equalizing	6	26.5	16	3	25	13	3.3	-	Bare Die
AM1148	Gain Equalizing	6	26.5	15	3	25	13	3.3	3 x 3 QFN	Broadband Gain Equalizing
AM1148-D	Gain Equalizing	6	26.5	15	2.9	24	12	3.3	-	Bare Die
AM1149	Gain Equalizing	6	26.5	14.5	2.8	25	13	3.3	3 x 3 QFN	Broadband Gain Eqaulzing
AM1149-D	Gain Equalizing	6	26.5	14.5	2.6	25	12	3.3	-	Bare Die
VARIABLE GAIN AMPLIFIERS										
AM1265	Bypassable VGA	0	8	-31.5 to 20	2	31	18	5	4 x 4 QFN	Amp / Bypass / 31.5dB DSA
AM1115A	Variable Gain Amplifier	2	18	-25.5 to 5.5	5.6	25.6	12	3.3	4 x 4 QFN	31dB Control; Positive Gain Slope
AM1159	Variable Gain Amplifier	1.4	20	-14.5 to 17.4	6.7	29.6	19.7	4.1	4 x 4 QFN	31dB Control; 1dB step
AM1146	Variable-Gain Amplifier	2	18	9 to 11	3.6	26	14	3.3	3 x 3 QFN	4 states; 0.5dB step
AM1135	Variable Gain Amplfier	6	26.5	7 to 9	3.5	25	13	3.3	3 x 3 QFN	4 states; 0.5dB step

SWITCHES

Mercury RF MMIC switches cover wide bandwidths with low insertion loss. Only positive supply and control voltages required.



PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	INSERTION LOSS (dB)	IIP3 (dBm)	SUPPLY (+V)	SUPPLY (mA)	CONTROL	PACKAGE (mm)
AM6011	SP8T, Reflective	0	10	1.0	40	3.3-5.0	9	3.0-5.0	4 QFN
AM6002A	SPDT, Reflective	0	14	2.0	36	3.3-5.0	0.5	3.0-5.0	3 QFN
AM6012	SPDT, Reflective	0	18	1.0	45	3.3-5.0	1	3.0-5.0	3 QFN
AM6015	SP6T, Reflective	0	18	2.0	40	3.3-5.0	9	3.0-5.0	4 QFN
AM6029	SP4T, Reflective	0	18	1.5	48	3.3-5.0	7	3.0-5.0	3 QFN
AM6013	SP4T, Reflective	0	20	1.3	42	3.3-5.0	7	3.0-5.0	3 QFN
AM6031	SPDT, Absorptive	0	20	1.5	45	3.3-5.0	1	3.0-5.0	3 QFN
AM6016	SPDT, Reflective	0	26.5	1.2	40	3.3-5.0	1	3.0-5.0	3 QFN
AM6017	SP4T, Reflective	0	26.5	2.0	41	3.3-5.0	8	3.0-5.0	4 QFN
AM6032	SP4T, Reflective	0	26.5	1.5	40	3.3- 5.0	5	3.0-5.0	4 QFN
AM6042	SP4T, Absorptive	0	20	1.8	38	3.3-5.0	5	3.0- 5.0	4 QFN
AM6055	SP8T, Absorptive	0	18	3.0	40	3.3-5.0	15	3.0-5.0	5 QFN

ATTENUATORS/EQUALIZERS

Mercury attenuator devices offer excellent insertion loss, flat frequency response, and temperature stability and are designed for gain control and dynamic range optimization applications over a broad frequency range. Mercury equalizer products offer linear gain slope in a variety of fixed and variable slope options to counteract negative gain slope accumulation in an RF system.

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	INSERTION LOSS (dB)	ATTEN (dB)	IIP3 (dBm)	SUPPLY (mA)	CONTROL (V)	PACKAGE (mm)
AM2005	5-bit 1dB steps	0	20	2.5	31	40	1.0	3.0	4 QFN
AM2010	5-bit 1dB steps	0	30	3.5	31	42	3.3	3.3	4 QFN
AM2018	Voltage Variable Attn	2	32	4	30	25	5.0	0-6.0	3 QFN
AM2024	6-bit 0.25dB steps	2	20	2.5*	15.75	40*	1.0*	3.3	4 QFN
AM2025	4-bit Digitally Adj Eq	0	20	-27 to -3	-	40*	3.0*	3.3	4 QFN
AM2026	5-bit 0.5dB steps	0	40	2.5*	15.5	40*	1.0*	3.3	4 QFN
AM2027	5-bit 1dB steps	2	20	2.5*	31	40*	1.0*	3.3	4 QFN
AM2100	0dB Fixed Attn	0	20	0	0	-	-	-	1.3 x 2 DFN
AM2101	1dB Fixed Attn	0	20	1	1	-	-	-	1.3 x 2 DFN
AM2102	2dB Fixed Attn	0	20	2	2	-	-	-	1.3 x 2 DFN
AM2103	3dB Fixed Attn	0	20	3	3	-	-	-	1.3 x 2 DFN
AM2104	4dB Fixed Attn	0	20	4	4	-	-	-	1.3 x 2 DFN

ATTENUATORS/EQUALIZERS *(continued)*

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	INSERTION LOSS (dB)	ATTEN (dB)	IIP3 (dBm)	SUPPLY (mA)	CONTROL (V)	PACKAGE (mm)
AM2105	5dB Fixed Attn	0	20	5	5	-	-	-	1.3 x 2 DFN
AM2152	2dB Passive Eq	0	20	-3.8 to -1.8	-	-	-	-	1.3 x 2 DFN
AM2154	4dB Passive Eq	0	20	-5.8 to -1.8	-	-	-	-	1.3 x 2 DFN
AM2156	6dB Passive Eq	0	20	-8.1 to -2.1	-	-	-	-	1.3 x 2 DFN
AM2158	8dB Passive Eq	0	20	-10.1 to -2.1	-	-	-	-	1.3 x 2 DFN

SPLITTERS

Mercury splitters and couplers are designed for small size, low loss, flat frequency response and broad frequency coverage.

PART NUMBER	FUNCTION	LOW FREQ (GHz)	HIGH FREQ (GHz)	INSERTION LOSS (dB)	ISOLATION (dB)	P1dB (dBm)	PACKAGE (mm)
AM4008	2-Way 0 degree	2	26.5	2	18	27	1.3 x 2 DFN
AM4009	2-Way 0 degree	6	24	2	25	27	3 QFN
AM4026	8-Way 0 degree	0	30	3.5	30	27	4 QFN

MIXERS

Mercury's mixer products operate over wide bandwidths with low conversion loss and high linearity and isolation.

PART NUMBER	FUNCTION	RF/LO LOW FREQ (GHz)	RF/LO HIGH FREQ (GHz)	IF LOW (GHz)	IF HIGH (GHz)	LO DRIVE (dBm)	CONVERSION LOSS (dB)	IIP3 (dBm)	PACKAGE (mm)
AM5007	Double Balanced	6	26.5	0	8	13-20	7	20	3 QFN
AM5008	Double Balanced	2	24	0	3	14-20	9	18	3 QFN

Space-Qualified Products

Mercury is proud to offer cutting-edge, space-qualified hardware to defense primes, government agencies, and commercial customers that is engineered to the most stringent performance standards—and have delivered more than 20,000 space-qualified products with no in-flight failures.

SOLID-STATE POWER AMPLIFIERS

MODEL NUMBER	FREQ RANGE (GHz)	GAIN (dB)	OUTPUT POWER P3dB (dBm) TYP
DM-HPS-8-102-S	2.2–2.3	44	39 dBm (8W)
DM-HPS-50-102-S	2.2–2.3	50	47 dBm (50 W)
DM-HPX-5-103-S	7.25–7.75	40	37dBm (5 W)
DM-HPX-10-103-S	7.25–7.75	40	40 dBm (10 W)
DM-HPX-20-103-S	7.25–7.75	45	43 dBm (20 W)
DM-HPX-4-102-S	7.9–8.4	40	36 dBm (4 W)
DM-HPX-8-102-S	7.9–8.4	40	39 dBm (8 W)
DM-HPX-15-102-S	7.9–8.4	45	42 dBm (15 W)

SPACE-QUALIFIED FERRITES

MODEL NUMBER	FREQ RANGE (GHz)	TYPE	ISOLATION dB (min)	INSERTION LOSS dB (MaX)	VSWR	DIMENSIONS (in)
DNF2540-T0045	.980–1.000	Drop-in Isolator	17	1.0	1.43:1	1.00 x 1.00 x 0.30
DNF1900T0160F	1.80–1.95	Drop-in Isolator	18	0.6	1.30:1	0.75 x 0.75 x 0.25
DNF1900T0248FM	2.1–2.2	Drop-in Isolator	20	0.4	1.25:1	0.75 x 0.75 x 0.25
DNF1900T0266F	2.2–2.3	Drop-in Isolator	20	0.4	1.25:1	0.75 x 0.75 x 0.25
DNF2222T0201	2.0–4.0	Drop-in Isolator	15	0.8	1.45:1	0.875 x 0.875 x 0.345
DNF2667F0401	4.0–6.0	Microstrip Launch Isolator	18	0.9	1.40:1	1.05 x 0.75 x 0.28
T008M02	8.38–8.46	Coaxial Isolator w/Flange SMA	20	0.3	1.25:1	0.625 x 1.00 x 0.375
T-008D02	7.90–8.50	Coaxial Isolator	20	0.4	1.25:1	0.375 x 0.380 x 0.210
SMF635F0813-F	8.0–9.0	Drop-in Isolator	18	0.6	1.30:1	0.25 x 0.50 x 0.18
T606S26	6.0–12.0	Coaxial Isolator	16	0.7	1.35:1	1.35 x 1.15 x 0.50
DNF2032F1001	10.0–14.0	Microstrip Launch Isolator	15	1.1	1.50:1	0.80 x 0.54 x 0.28
T412S27	12.0–18.0	Coaxial Isolator	18	0.5	1.30:1	0.69 x 0.95 x 0.50
DNF2032F1201	12.0–18.0	Microstrip Launch Isolator	15	1.1	1.40:1	0.80 x 0.54 x 0.28
SMF635F1708	17.3–18.5	Drop-in Isolator	18	0.5	1.30:1	0.25 x 0.50 x 0.18
T018S06	18.5–18.9	Coaxial Isolator	20	0.5	1.22:1	0.50 x 0.50 x 0.63

SPACE-QUALIFIED TELEMETRY FILTER/AMPLIFIERS

MODEL NUMBER	PASSBAND (MHz)	GAIN (dB)	NOISE FIGURE (dB)	CONNECTORS
S59109	2025 to 2060	45 +/- 3	2.5	SMA
S59128	2025 to 2100	45 +/- 3	2.5	SMA
S59111	2200 to 2400	37.5 +/- 2.5	1.5	SMA

FEATURED PRODUCT

6U SpaceVPX processing board with AMD® Versal®

The SCFE6933 is a rad-tolerant COTS processing board that employs an AMD Versal™ AI Core series adaptive SoC to collect and process more sensor data on orbit faster. AI engines provide up to 5X higher compute density for vector-based algorithms and are optimized for real-time DSP and AI/ML computation to deliver deterministic for performance beamforming, radar processing, communications and radio applications.

SPACE-QUALIFIED FILTERS

MODEL NUMBER	PASSBAND (MHz)	TYPE	INSERTION LOSS (dB)	REJECTION
L1355	1575.42	GPS Bandpass Filter	0.25	30 dBc at 1200 MHz, 60 dBc at 2100 MHz
S2306	2200–2300	Band Reject Filter	0.4	30 dB from 2000–2045 MHz
S1974	2260–2500 & 2360–2600	Ultra Linear Bandpass Filter	3	30 dB from 1980–2220 MHz, 30 dB from 2080–2320 MHz
C1970	6468–6588	Ultra Linear Bandpass Filter	3	61 dBc at F0 ± 207 MHz
C1814	6836–7016	Ultra Linear Bandpass Filter	1.7	65 dBc at F0 ± 395 MHz
Ku1960	17300–17700	Ku Band Bandpass Filter	1	40 dB at 17800 MHz
E1911	19700–20200	Ka Band Bandpass Filter	2	35 dB at 19500 MHz, 50 dB at 30000 MHz
E1507	29510–29746	Ka Band Bandpass Filter	1.5	40 dB at 29510 MHz, 40 dB at 30112 MHz
E1508	29754–29990	Ka Band Bandpass Filter	1.5	40 dB at 29388 MHz, 40 dB at 30356 MHz

SPACE-QUALIFIED GPS FILTER/AMPLIFIERS (L1, L2, L5)

MODEL NUMBER	L2 (1227 MHz) BANDWIDTH	L1 (1575 MHz) BANDWIDTH	GAIN (dB)	NOISE FIGURE (dB)	CONNECTORS
L5699-1S	+/- 10	+/- 10	30	3.0	SMA
L56102	+/- 10	+/- 10	40	2.5	SMA
L56113	L2 & L5	+/- 10	40	2.5	SMA
L5475-1	NA	+/- 10	22	2.5	SMA
L5988	NA	+/- 10	10	3.0	SMA

CUSTOM SPACE-QUALIFIED COMPONENTS


Broadband High-Isolation SP3T


High-Power Gain and Phase Matched Assembly with Switches and AGC


High-Power Space Directional Coupler


Display Diplexer/ Amplifier/Combiner


Hybrids


Space-Qualified Splitters


X16 Frequency Multiplier


Ku Band Diplexer/Switch/ Coupler/Amplifier


Switch/Filter/Amplifier with Integrated Cooling and Noise Diodes


Gain Equalizer


Space-Qualified Ku Band Filter/Amplifier


Solid-State Power Amplifier

Amplifiers

HIGH-POWER BROADBAND CW AMPLIFIERS

Our high-power Broadband CW amplifiers offer high output power through technologies such as GaN devices and novel power combing structures. Available in rugged hermetic packages, these amplifiers are optimized for operation in harsh environments. Mercury's featured amplifiers are listed below. Our portfolio includes additional products, along with the ability to design custom amplifiers.

MODEL NUMBER	FREQ RANGE (GHz)	PSAT (dBm)	PSAT (W) TYP.	GAIN (dB)	PAE, TYP.	VOLTAGE (V), CURRENT (A)
DM-HPMB-10-103	0.1–6.0	39	10	55	20 %	28, 2.2
DM-HPSC-25-101	2.0–6.0	43	25	45	30 %	28, 3
AML218P4013	2.0–18.0	42	20	38	12 %	32, 4.9
AML618P4015	6.0–18.0	42	15	40	12 %	32, 4.9

HIGH-POWER NARROWBAND CW AMPLIFIERS

Our high-power narrowband CW amplifiers are ideal for rugged communication applications. These high-performance products utilize GaAs and GaN devices to maximize linearity and output power all in compact form factors. With reliability built in from the earliest design phases, these power amplifiers perform in the harshest environments.

MODEL NUMBER	FREQ RANGE (GHz)	PSAT (dBm)	PSAT (W) TYP.	GAIN (dB)	PAE, TYP.	VOLTAGE (V), CURRENT (A)
DM-HPS-35-101	2.2–2.5	45.5	35	20	35 %	28, 3.6
AML811P5012	7.8–11.0	45.5	35	50	23 %	28, 5.5
AML811P5013	7.8–11.0	48	63	50	25 %	28, 11.5
DM-HPX-25-101	8.0–11.0	43	25	45	30 %	28, 3.5
DM-HPX-30-101	8.0–11.0	44	30	45	22 %	28, 5.5
DM-HPX-50-102	8.0–11.0	46	50	50	30 %	28, 6.0
DM-HPX-100-105	9.75–10.25	49.5	100	50	30 %	28, 17
DM-HPKU-40-101	14.4–15.5	44	30	45	15 %	28, 6.5
DM-HPKA-10-102	29.0–31.0	40	10	50	15 %	20, 3.6

HIGH-POWER PULSED AMPLIFIERS

To support advanced radar applications, Mercury has developed a line of high-power, narrowband pulsed amplifiers. Using GaN device technology, power levels in excess of 1 kW at frequencies above 10 GHz are available. Custom systems leverage Mercury's building-block design approach for rapid delivery.

MODEL NUMBER	FREQ RANGE (GHz)	PSAT (dBm)	PSAT (W) TYP.	GAIN (dB)	PAE, TYP.	VOLTAGE (V)
DM-HPL-1K-102	1.2–1.4	61	1600	60	40%	50

LOW-NOISE AMPLIFIERS

Broadband, narrowband, high frequency. Our extensive portfolio of LNAs is ready to tackle the toughest requirements. We have a vast library of building blocks ready to support any custom design.

LOW-NOISE AMPLIFIERS, BROADBAND

MODEL NUMBER	FREQ RANGE (GHz)	GAIN (dB)	FLATNESS (±dB)	NF (dB)	P1dB (dBm)	OIP3 (dBm) TYP.	VSWR (IN/OUT) TYP.	VOLTAGE (V), CURRENT (Ma)
AML18L3001	1.0–8.0	30	2	1.8	13	22	1.8:1	12, 110
AML618L4011	6.0–18.0	40	2	1.6	10	20	2.0:1	12, 220
AML812L3003	8.0–12.0	30	1.5	1.3	10	18	2.0:1	12, 150

*above 500 MHz

LOW-NOISE AMPLIFIERS, NARROWBAND

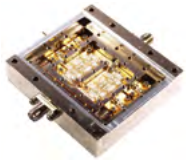
MODEL NUMBER	FREQ RANGE (GHz)	GAIN (dB)	FLATNESS (±dB)	NF (dB)	P1dB (dBm)	OIP3 (dBm) TYP.	VSWR (IN/OUT) TYP.	VOLTAGE (V), CURRENT (Ma)
DM-LNC-30-101	4.4–6.0	28	1	1	10	18	2.0:1	12 V, 200 mA
AML56L2802	5.9–6.4	28	1	0.7	10	18	2.0:1	12 V, 100 mA

MEDIUM-POWER BROADBAND AMPLIFIERS

Our medium-power Broadband amplifiers utilize advanced design techniques to achieve solid performance in gain, flatness, noise figure, and output power over an extremely wide frequency range.

MODEL NUMBER	FREQ RANGE (GHz)	GAIN (dB)	FLATNESS (±dB)	NF (dB)	P1dB (dBm)	OIP3 (dBm) TYP.	VSWR (IN/OUT) TYP.	VOLTAGE (V), CURRENT (Ma)
DM-MPMB-20-101	0.5–18.0	20	1.75	6.5	23	31	2.0:1	11, 450
DM-MPMB-18-101	2.0–18.0	18	1.25	5.6	24	32	2.0:1	11, 500
DM-MPMB-25-102	6.0–18.0	25	2	3	20	30	2.0:1	11, 450

*above 500 MHz



ULTRA-LOW PHASE NOISE AMPLIFIERS

MODEL NUMBER	FREQ RANGE (GHz)	GAIN (dB) MIN	FLATNESS (±dB) MAX	PHASE NOISE					NF (dB) MAX	P1dB (dBm) MIN	VSWR (IN/OUT) TYP	VOLTAGE (V), CURRENT (Ma)
				100 HZ	1 KHZ	10 KHZ	100 KHZ	1 MHz				
AML812PNB1813	8.0–12.0	18	2	-150	-160	-168	-172	-175	7	17	1.5:1	12, 250

Filters

Mercury's portfolio of compact, low-loss, high-Q filters utilize advanced lumped element and cavity technologies.

We have an extensive library of filter products and reference designs to accelerate your project. Products and capabilities include:

- Low-pass, high-pass, band-pass, and band-reject filters
- Diplexers and multiplexers
- Integrated filter assemblies

FILTER CAPABILITIES

Waveguide Filter

- 4–40 GHz
- Q Values of up to 10,000
- Waveguide or coaxial connections

Combline Cavity Filter

- 1–30 GHz
- 6061 aluminum typical chassis

Ceramic Resonator

- 500 MHz–5 GHz
- Temperature-stable ceramic
- Low insertion loss
- Quasi-elliptical design for higher out-of-band rejection

Lumped Element Filter

- Up to 10 GHz
- Miniaturized design
- Wide stopband

Low CTE materials and temperature compensation designs are utilized to reduce frequency shift.

GPS Filters and Filter/Amplifiers

Mercury's GPS filters/amplifiers offer high reliability for ground, airborne, or missile applications. Mercury also offers custom designs, including multiple outputs and receiver protection limiters.

INTEGRATED GPS FILTER/AMPLIFIER ASSEMBLIES

MODEL NUMBER	L2 (1227 MHz) BANDWIDTH	L1 (1575 MHz) BANDWIDTH	GAIN (dB)	NOISE FIGURE (dB)	SIZE (in)	CONNECTORS
L54138	NA	+/- 10	25	2.9	0.84 x 1.5 x 4.5	SMA female
L5217	NA	+/- 10	20	2	0.6 x 1.81 x 3.0	SMA female
L54129	+/- 1	+/- 8	25	1.5	1.5 x 3.0 x 3.0	SMA female
L54112	+/-8	+/-8	40	2.5	0.63 x 3.5 x 4.0	SMA female
L54113	+/- 10	+/- 10	25	2.5	0.5 x 2.2 x 2.75	SMA female
L5697	+/-10	+/-10	34	3	0.5 x 3.0 x 3.0	SMA female
L59103	+/-15	+/-15	48	2	2.0 x 5.75 x 9.0	SMA female

GPS DIPLEXERS

MODEL NUMBER	L2 (1227 MHz) BANDWIDTH	L1 (1575 MHz) BANDWIDTH	INSERTION LOSS (dB)	SIZE (in)	CONNECTORS
L54144	+/-12	+/-12	0.5	1.0 x 3.0 x 3.0	SMA female
L5215	+/-15	+/-15	1.5	0.5 x 1.34 x 1.38	SMA female

Ferrites

Standard products with frequencies from 150 MHz–40 GHz and bandwidths from 5% to multi-octave are complemented by the technical capabilities to address the most challenging custom requirements.

The SMT portfolio of ferrites has been refined for optimal performance in size and weight-constrained systems.

COAXIAL CIRCULATORS

MODEL NUMBER	FREQ RANGE (GHz)	ISOLATION (dB)	INSERTION LOSS (dB)	VSWR	POWER (WATTS) (PEAK/AVG)
C1000N01	0.6–1.8	24	2.4	1.67:1	250/37.5

CIRCULATORS, DROP-IN

MODEL NUMBER	FREQ RANGE (GHz)	ISOLATION (dB)	INSERTION LOSS (dB)	VSWR	POWER (WATTS) (PEAK/AVG)
DNF2540C0007	0.96–1.215	17	0.6	1.35:1	2000/70
DNF2540C0100	1.2–1.4	20	0.5	1.25:1	300
DNF1900C0310	3–3.5	20	0.6	1.25:1	5
DNF1900C0510	5.0–10.0	16	0.6	1.40:1	5
DNF1300C0618	6.0–18.0	13	1.2	1.60:1	1
SMF950C0902	9.0–10.0	20	0.5	1.25:1	50/16.5
SMF635C1601	16.1–16.5	20	0.7	1.25:1	10

SURFACE-MOUNT CIRCULATORS

MODEL NUMBER	FREQ RANGE (GHz)	ISOLATION (dB)	INSERTION LOSS (dB)	VSWR	POWER (WATTS) (PEAK/AVG)
SMD1900C3134	3.1–3.4	25	0.3	1.12:1	100/30
SMD1300C0401	4.0–5.0	15	0.5	1.25:1	10
SMD1300C0503	5.0–6.0	20	0.5	1.25:1	5
SMD1300C0601	6.5–7.5	20	0.5	1.25:1	5
SMD1300C0800	8.0–12.0	20	0.7	1.25:1	125/3.2

COAXIAL ISOLATORS

MODEL NUMBER	FREQ RANGE (GHz)	ISOLATION (dB)	INSERTION LOSS (dB)	VSWR	FORWARD POWER (WATTS) (PEAK/AVG)
T300S03	0.7–1.0	17	0.5	1.35:1	1000/100
T601S01	1.0–2.0	17	0.6	1.35:1	200/20
T602S01	2.0–4.0	20	0.5	1.25:1	100/2
T603S02	3.0–6.0	18	0.5	1.25:1	100/10
T604S20	4.0–8.0	18	0.5	1.3:1	100/10
T204S01	4.7–6.0	23	0.25	1.15:1	100/10
T605S10	5.0–10.0	18	0.5	1.3:1	20/2
T105S07	5.8–6.5	25	0.25	1.15:1	100/10
T606S01	6.0–12.0	18	0.4	1.25:1	20/2
T006S01	6.0–18.0	13	1.0	1.6:1	15/2
T107S10	7.0–8.5	25	0.25	1.15:1	200/20
T407S02	7.0–11.0	25	0.4	1.15:1	20/10
T608S03	8.0–16.0	20	0.5	1.25:1	50/5
T808S01	8.0–20.0	15	1.0	1.45:1	10/1
T109S15	9.2–10.5	23	0.3	1.22:1	200/20
T610S01	10.0–20.0	17	0.7	1.35:1	10/1
T412S01	12.0–18.0	20	0.5	1.25:1	10/1
T613S01	13.0–26.5	15	0.8	1.5:1	20/0.5
T013S10	13.5–14.5	23	0.3	1.22:1	10/2
T014S15	14.5–15.5	23	0.3	1.22:1	10/1
T115S06	15.0–18.0	22	0.4	1.22:1	2/0.5
T318S01	18.0–26.5	18	0.5	1.25:1	2/0.5
T126K01	26.0–30.0	17	0.8	1.4:1	2/0.5
T426K02	26.5–40.0	15	1.2	1.5:1	2/0.5

DROP-IN ISOLATORS

MODEL NUMBER	FREQ RANGE (GHz)	ISOLATION (dB)	INSERTION LOSS (dB)	VSWR	FORWARD POWER (WATTS) (PEAK/AVG)
DNF2540T0020	9.35–9.60	23	0.3	1.15:1	300
DNF2540T0100	1.2–1.4	20	0.4	1.25:1	300
DNF1900T0220	2.1–2.4	20	0.5	1.25:1	200
DNF1900T0245	2.7–3.1	20	0.5	1.25:1	200/20
DNF1900T0315	3.6–4.2	23	0.4	1.16:1	100/10
SMF950F0400	4.2–4.4	20	0.5	1.25:1	50/5
DNF1300T0410	4.4–5.0	20	0.4	1.25:1	100/10
DNF1300T0500	5.0–6.0	20	0.4	1.25:1	100/10
SMF1150F0610	6.0–18.0	13	1.3	1.7:1	3/0.5
DNF1300T0600	6.4–7.8	20	0.5	1.25:1	50/5
SMF950F0710	7.0–11.0	18	0.5	1.33:1	5/0.5
DNF1300T0720	7.8–8.5	23	0.4	1.15:1	50/5
SMF950F0810	8.0–12.0	18	0.5	1.25:1	5/0.5
SMF1150F0800	8.0–18.0	16	0.8	1.4:1	5/0.5
SMF950F1010	10.0–15.0	17	0.5	1.25:1	10/2
SMF635F1210	12.0–18.0	17	0.7	1.35:1	5/0.5
SMF635F1320	13.0–15.5	20	0.5	1.25:1	10/1
SMF635F1415	14.0–14.5	20	0.4	1.25:1	10/1
SMF635F1510	15.0–18.0	20	0.6	1.25:1	10/1
SMF635F1800	18.0–21.0	20	0.4	1.3:1	5/0.5
SMF635F2103	21.2–23.6	18	0.7	1.3:1	5/0.5

SURFACE-MOUNT ISOLATORS

MODEL NUMBER	FREQ RANGE (GHz)	ISOLATION (dB)	INSERTION LOSS (dB)	VSWR	FORWARD POWER (WATTS)
SMD1900T0204	2.9–3.7	20	0.7	1.20:1	5
SMD1300T0800	8.0–12.4	20	0.65	1.25:1	3.2
SMD890F1501	15.0–18.0	20	0.8	1.25:1	5
SMD635T2400	21.6–26.4	17	1	1.35:1	2
SMD635T3300	33.4–36.0	17	1	1.35:1	2

Noise Products

Mercury offers noise modules used in monitoring receiver components and specialized noise modules for bit error rate (BER) testing and dithering circuits.

BROADBAND COAXIAL NOISE SOURCES

MODEL NUMBER	FREQ RANGE (GHz)	OUTPUT (dB MIN ENR)	SPECTRAL DENSITY (dBm/HZ)	PEAK FACTOR	BIAS VOLTAGE (V)
NST04-B	0.01–4.0	25	-149	5:01	15
NS5101-A1W	0.5–4.0	25	-149	5:01	15
NS5102-A2X	1.0–18.0	25	-149	5:01	15

SURFACE-MOUNT NOISE SOURCES

MODEL NUMBER	FREQ RANGE	OUTPUT (dB MIN ENR)	SPECTRAL DENSITY (dBm/HZ)	FLATNESS (dB P-P) MaX	PEAK FACTOR	BIAS VOLTAGE (V)
SMN7105-D1C	100 kHz–3 MHz	101	-73	2	5:01	12
SMN3018-D1D	20 MHz–6 GHz	30	-148	3	5:01	12

HIGH-POWER NOISE SOURCES

MODEL NUMBER	FREQ RANGE	OUTPUT (dB MIN ENR)	SPECTRAL DENSITY (dBm/HZ)	NOISE POWER (N) (dBm)	FLATNESS (dB P-P) MaX	BIAS VOLTAGE (V)
NMA-2513	0.01 GHz–4.0 GHz	78	-96	0	4	5 and 12
NMA-5300	2.0 GHz–18.0 GHz	64.5 to 72.0	-107	-5	5	15

Switches

Mercury's PIN diode switch portfolio spans the frequency range of 0.5–40 GHz. They offer both high-performance and integrated high-speed, driver-controlled TTL or CMOS signals in a compact package. These switches serve as a drop-in device for system or subsystem requirements and are proven in critical applications.

HIGH-SPEED SWITCHES

PIN DIODE SWITCH	TYPE	FREQ RANGE (GHz)	ISOLATION LOSS (dB MAX)	VSWR (MAX)	ISOLATION (MAX)	SWITCHING SPEED
SP1T	Reflective	0.5–18 (band selective)	1.4–2.8	1.6–2.0	80–60	100
SP1T	Absorptive	0.5–18 (band selective)	1.5–3.0	1.6–2.0	80–65	100
SP2T	Reflective	0.5–18 (band selective)	1.4–3.0	1.6–2.0	80–60	100
SP2T	Absorptive	0.5–18 (band selective)	1.5–3.2	1.6–2.0	80–65	100
SP2T High Speed Switch	Reflective	18–40	2.5–3.0	2.0–2.5	30–35	100–500
SP3T	Reflective	0.5–18 (band selective)	1.5–3.2	1.6–2.0	80–60	100
SP3T	Absorptive	0.5–18 (band selective)	1.6–3.4	1.6–2.0	80–65	100
SP4T	Reflective	0.5–18 (band selective)	1.6–3.4	1.6–2.0	80–60	100
SP4T	Absorptive	0.5–18 (band selective)	1.7–3.6	1.6–2.0	80–65	100

HIGH-POWER SPDT SWITCHES

MODEL NUMBER	FREQ RANGE (GHz)	PEAK POWER (WATTS) (MAX)	AVERAGE POWER (WATTS) (MAX)	PULSE WIDTH (USEC) (MAX)	LOAD VSWR (MAX)	SWITCHING SPEED (NS) (MAX)
ES0011	2.0–4.0	300	40	10	2:01	700
ES0012	4.0–8.0	300	40	10	2.5:1	200
ES0013	8.0–18.0	300	40	10	2.5:1	300

NOTES

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We work closely with our customers and semiconductor partners to deliver a broad portfolio of SWaP-optimized analog and digital RF solutions to maximize system performance and redefine high-frequency innovation at the edge.

Benefits

COTS TECHNOLOGY
Rapid and affordable adoption of leading commercial technologies to deliver cutting-edge performance

INTEROPERABILITY
Seamless integration of applications and software across multiple platforms

ENHANCED RELIABILITY
Proven performance and availability in the most stringent environments

EXTENSIVE CUSTOMER MARKET EXPERIENCE
Over three decades of experience in delivering reliable solutions best suited to customer needs

SIZE, WEIGHT, AND POWER (SWAP)
Specialty packaging designed to meet systems engineering constraints at the edge

QUICK TURNAROUND
Dedicated technical support and faster or equal lead times than other well-known competitors

COMPOSABILITY
Built-in composability to give you what you want in a more cost-effective purchase

BUILT TO SPECIFICATION
Scalable program-specific support through custom design-to-spec solutions and the ability to modify standard products to meet individual mission needs

SECURITY
Security that can be integrated as the threat dictates with “built-in” not “bolted-on” secure solutions

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Modular, open architecture systems that relieve the challenges and costs associated with logistics and upgrades

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Mercury Systems is a technology company that delivers mission-critical processing power to the edge to solve the most pressing aerospace and defense challenges. Combining technologies and expertise developed for more than 40 years, the Mercury Processing Platform offers customers a unique advantage to unleash breakthrough capabilities, spanning the full breadth of signal processing—from RF front end to the human-machine interface.

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