Radio frequency and Microwave components for unlimited developments and solutions...

DC - 50 GHz
Passive components
Active components
Engineering and Systems

An AA Group Company

AA MCS - Microwave Components and Systems

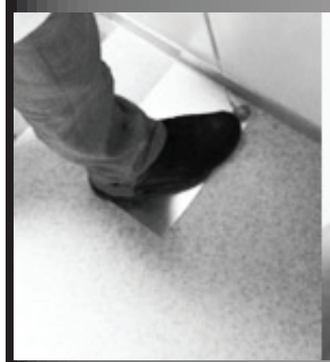
AA-MCS is a European leader in design, development and manufacturing of passive and active Radiofrequency and Microwave components up to 50 GHz.

AA-MCS offers a complete range of standard items that support the most demanding applications in Defence, Industry, Aerospace, Telecommunications, Medical equipment, Research & Development, EMC, Instrumentation…
AA-MCS provides a variety of services for customers. Building from a concept or simply from customers' drawings, we conceive, design, develop and produce prototypes, sub-assemblies or complex systems.

Our skills are based on expert specialists, Radio frequency and Microwave design experience and highly skilled tool makers. Our engineering team designs and builds complex electrical and mechanical specifications on a daily basis.

AA-MCS is a solution provider offering its services for the assembly of "turn-key" systems, for which our interdisciplinary nature is particularly well adapted...
We have ISO 9001:2008 accreditation. We follow strict rules to ensure timely delivery, to abide by customers' orders and to provide all the necessary documents such as test sheets and test measurements.
AA-MCS headquarters are based in ORSAY near Paris, whereas the production factory is situated in Saint Avertin near Tours.

AA-MCS belongs to AA-GROUP, a human-size and independent group specialised in High Technologies in the fields of Opto-electronics, Radio frequency and Microwave technologies.

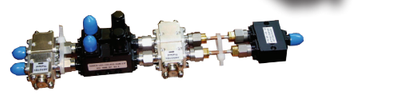


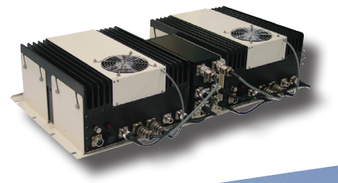
AA MCS

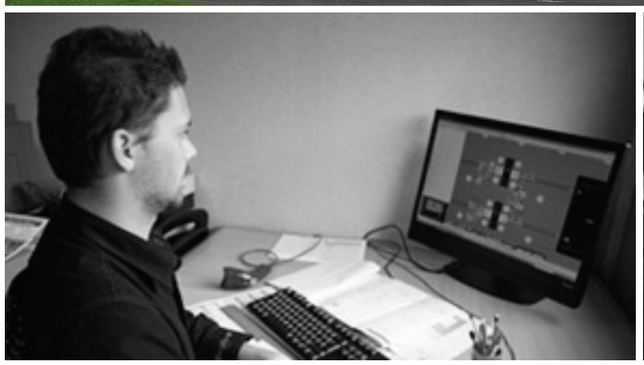
Custom design and Integration Services up to 50 GHz

AA Group strives to become a worldwide leader in providing high quality components and systems ensuring every stage of production from design to manufacturing. Our in-house vertically integrated structure allows us to master all the specialities of our field, thus offering flexibility, State-of-the-Art and cost-effective products to our national and international customers and partners.

AA Group comprises six companies and activities, about a hundred employees, three factories in France and a Sales Company located in New York. Over 70% of the Group's turnover is generated in Europe (excluding France), Asia and America. This large diversification ensures AA Group the necessary solid financial basis to guaranty long-term stability for its customers and partners' projects.







Engineering & Design
Custom solutions, Sub-systems, Systems

Custom Design and Integration Services up to 50 GHz

AAMCS provide a variety of services for customers. Starting from a concept or simply from customers' drawings, we are able to imagine, design, develop, produce prototypes, sub-assemblies or complex systems.
We are able to offer this because of our combination of specialists, Radio frequency and Microwave design experience and highly skilled tool makers.
Our engineering team has the ability to design and to build complex electrical and mechanical specifications and routinely work on such projects.

AA-MCS is a solutions' provider, proposing its services for the assembly of "turn-key" systems, for which our interdisciplinary nature is particulary well adapted...

We have Veritas ISO 9001:2008 accreditation. We follow strict rules to deliver to our customers day after day, what they exactly ordered with all necessary documents, tests sheets and tests measurements.

Custom Designed Sub-Systems to customer specification

AA-MCS can handle full integration of your custom or off-the-shelf system. With in-depth knowledge of a wide range of computing solutions, we can assist you with the selection, procurement installation, configuration and support hardware and software elements.
Creation of these systems may include designing or building a customized architecture or application, integrating it with new or existing hardware, packaged and custom software, and communications infrastructure.
Custom configurations include cabinets, rackmounted units, modular units and 19" bench top units.

Amplifiers Integrated into Rackmounted units or Cabinet

This type of material is intended for very broadband and/or very High Power requirements, such as telecommunications, Laboratories or test benches, or EMC applications.

Redundant Amplifier Systems

Redundant configuration increases the reliability of the system. It includes a switch system that detects amplifier malfunction and switches the signal to a second amplifier. As with module amplifiers, power suppliers may also be redundant. Control of this type of system may be either automated or triggered by an operator via software.

AA MCS
We design, we manufacture, we supply

Active Components

Broadband Power Amplifiers

AAMCS:
the European supplier for ultra compact amplifier solutions based on GaN technology

Features :
- Best in class for UAV SatCom and point to point solutions
- Ideal for manpack jamming solutions or EW compact integrations
- Qualified for harsh environmental conditions
- Qualified for UAV and airborne applications
- Ultra broadband on GaN solutions
- High efficiency and improved EVM
- Integration possible in racks for instrumentation or telecom market

Satcom, EW, RCIED, ECM, EMC or instrumentation purpose featuring:
- French design and manufacturing
- ITAR free design
- Design to operate in severe environmental conditions
- Several frequency bands available between 20 MHz to 18GHz
- High efficiency
- Temperature compensated
- RoHs compliant
- Ultra small design
- GaN technology for ruggedness
- Excellent EVM performances
- Ultra fast switch time for noise quieting / blanking mode
- Same form factor for several bands

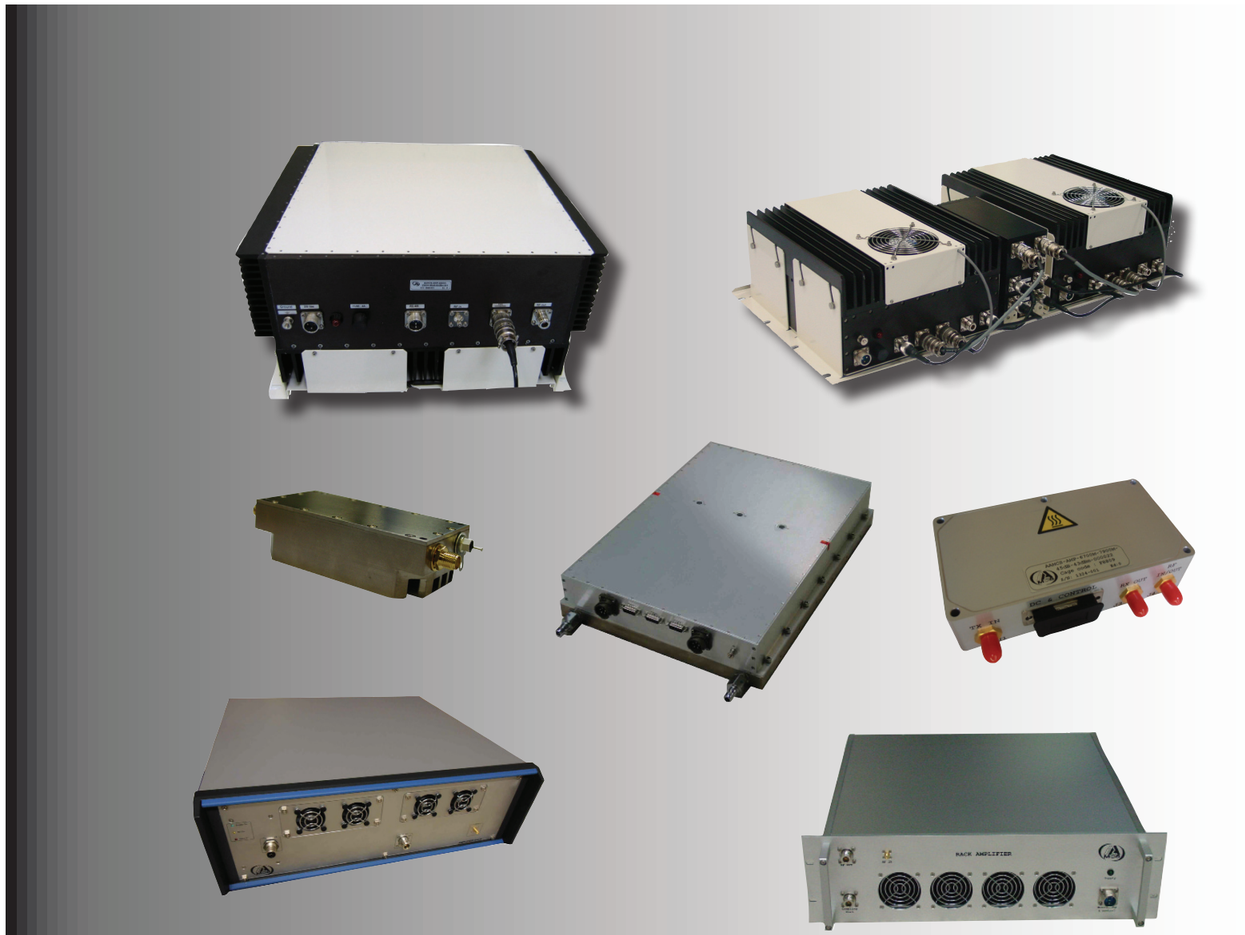
Additional functions:
- Forward power measurement
- Temperature measurement
- Over temperature protection with automatic recovery
- Isolator for ruggedness
- Fast blanking with ultra low noise power density (drain &gate bias OFF)
- Temperature Gain compensation
- Predistorsion for best EVM

AA MCS
Ultra Compact and Compact range

UAV, Satcom, EW, RCIED, ECM, EMC Applications

20 – 30W compact line	50 – 250W compact line
	
20MHz-6GHz - 20W 2-6GHz - 30W 6-12GHz - 30W 4.4-5.1GHz - 30W 5.5-8.5GHz - 20W 6.7-7.9GHz - 25W 9-11GHz - 20W 14-16GHz - 20W More on demand!	2-6GHz 250W 2-6GHz 100W 0.5-2.5GHz 200W 0.7-2.7GHz 200W 0.7-2.7GHz 100W 0.8-4.2GHz 50W 1-3GHz 100W More on demand!
Size: 120 x 60 x 28 mm³	**Size:** **Full brick : 300 x 300 x 28 mm³ (50-250W)** **Half brick : 150 x 250 x 28 mm³ (25-100W)** **Quarter brick : 100 x 150 x 28 mm³ (15-50W)**

Active Components
Broadband Power Amplifiers



AA-MCS designs and produces Broadband Amplifiers, available with low and high power. AA-MCS offers standard products and is able to modify them to meet customer requirements and delivery schedules.

AA-MCS can also realize new designs Based on your electrical and mechanical requirements, AA-MCS will provide you with a detailed proposal, including the specification and RF block diagram.
Configurations: Indoor/Outdoor units, 1:1 auto redundancy switching capabilities, Water cooled, fan, heat-sink cooling solutions.
Remote Control: Integrated controller unit provides remote monitoring and control through RS-232, RS-422, RS-485, TTL, USB, RJ-45 or TCP/IP via customer supplied PC.
Packaging: bench-top, rackmounted, modular or custom design.

AA MCS
Standard Power Amplifiers

AMPLIFIERS 50 mW

REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-2G-18G-30dB-17dBm-x	2GHz-18GHz	30dB	17dBm	28VDC/230VAC
AAMCS-AMP-4G-6G-30dB-17dBm-x	4GHz-6GHz	30dB	17dBm	28VDC/230VAC
AAMCS-AMP-4G-12G-30dB-17dBm-x	4GHz-12GHz	30dB	17dBm	28VDC/230VAC

AMPLIFIERS 0.5 W

REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-50M-2000M-25dB-27dBm-x	50MHz-2000MHz	25dB	27dBm	28VDC/230VAC
AAMCS-AMP-50M-2000M-25dB-27dBm-x	50MHz-2000MHz	25dB	27dBm	28VDC/230VAC
AAMCS-AMP-300M-3000M-25dB-27dBm-x	300MHz-3000MHz	25dB	27dBm	28VDC/230VAC
AAMCS-AMP-300M-3000M-25dB-27dBm-x	300MHz-3000MHz	25dB	27dBm	28VDC/230VAC

AMPLIFIERS 1 W

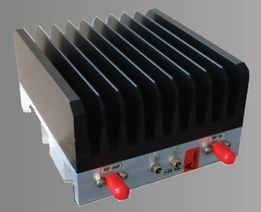
REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-10M-510M-30dB-30dBm-x	10MHz-510MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-10M-510M-30dB-30dBm-x	10MHz-510MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-50M-500M-30dB-30dBm-x	50MHz-500MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-50M-500M-30dB-30dBm-x	50MHz-500MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-50M-500M-30dB-30dBm-x	50MHz-500MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-1000M-30dB-30dBm-x	100MHz-1000MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-1000M-30dB-30dBm-x	100MHz-1000MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-2200M-30dB-30dBm-x	100MHz-2200MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-2200M-30dB-30dBm-x	100MHz-2200MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-800M-2200M-30dB-30dBm-x	800MHz-2200MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-800M-2200M-30dB-30dBm-x	800MHz-2200MHz	30dB	30dBm	28VDC/230VAC
AAMCS-AMP-10M-510M-45dB-30dBm-x	10MHz-510MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-10M-510M-45dB-30dBm-x	10MHz-510MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-50M-500M-45dB-30dBm-x	50MHz-500MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-50M-500M-45dB-30dBm-x	50MHz-500MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-1000M-45dB-30dBm-x	100MHz-1000MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-1000M-45dB-30dBm-x	100MHz-1000MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-2200M-45dB-30dBm-x	100MHz-2200MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-100M-2200M-45dB-30dBm-x	100MHz-2200MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-800M-2200M-45dB-30dBm-x	800MHz-2200MHz	45dB	30dBm	28VDC/230VAC
AAMCS-AMP-800M-2200M-45dB-30dBm-x	800MHz-2200MHz	45dB	30dBm	28VDC/230VAC

AMPLIFIERS 2-4 W

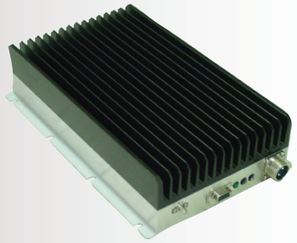
REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-0020M-6000M-30dB-33dBm-x	20MHz-6000MHz	30dB	33dBm	28VDC/230VAC
AAMCS-AMP-10M-3000M-30dB-36dBm-x	10MHz-3000MHz	30dB	36dBm	28VDC/230VAC
AAMCS-AMP-10M-3000M-30dB-36dBm-x	10MHz-3000MHz	30dB	36dBm	28VDC/230VAC
AAMCS-AMP-30M-3000M-30dB-36dBm-x	30MHz-3000MHz	30dB	36dBm	28VDC/230VAC
AAMCS-AMP-30M-3000M-30dB-36dBm-x	30MHz-3000MHz	30dB	36dBm	28VDC/230VAC

Active Components
Broadband Power Amplifiers

Module -0
Conduction through baseplate



Module -F
Heatsink +
Conduction through baseplate



Version -R
Rack mounted

Version -D
Desktop mounted

HF Band	3-30 MHz
VHF	30-300 MHz
UHF	0.3-1 GHz
L	1-2 GHz
S	2-4 GHz
C	4-8 GHz
X	8-12.4 GHz
Ku	12.4-18 GHz
K	18-26.5 GHz
Ka	26.5-40 GHz
U	40-50 GHz
V	50-75 GHz
W	75-110 GHz

dBm	W	dBm	W	dBm	W
24	250 mW	36	4.0 W	48	63 W
25	316 mW	37	5.0 W	49	80 W
26	398 mW	38	6.3 W	50	100 W
27	500 mW	39	8.0 W	51	125 W
28	630 mW	40	10 W	52	158 W
29	800 mW	41	13 W	53	200 W
30	1.0 W	42	16 W	54	251 W
31	1.3 W	43	20 W	55	316 W
32	1.6 W	44	25 W	56	398 W
33	2.0 W	45	32 W	57	501 W
34	2.5 W	46	40 W	58	630 W
35	3.2 W	47	50 W	60	1000 W

AA MCS
Standard Power Amplifiers

AMPLIFIERS 10-12.5 W

REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-20M-2000M-40dB-40dBm-x	20MHz-2000MHz	40dB	40dBm	28VDC/230VAC
AAMCS-AMP-20M-2000M-40dB-40dBm-x	20MHz-2000MHz	40dB	40dBm	28VDC/230VAC
AAMCS-AMP-400M-2700M-40dB-40dBm-x	400MHz-2700MHz	40dB	40dBm	28VDC/230VAC
AAMCS-AMP-400M-2700M-40dB-40dBm-x	400MHz-2700MHz	40dB	40dBm	28VDC/230VAC
AAMCS-AMP-1000M-3000M-35dB-40dBm-x	1000MHz-3000MHz	35dB	40dBm	28VDC/230VAC
AAMCS-AMP-1000M-3000M-35dB-40dBm-x	1000MHz-3000MHz	35dB	40dBm	28VDC/230VAC
AAMCS-AMP-2000M-6000M-35dB-40dBm-x	2000MHz-6000MHz	35dB	40dBm	28VDC/230VAC
AAMCS-AMP-2000M-6000M-35dB-40dBm-x	2000MHz-6000MHz	35dB	40dBm	28VDC/230VAC
AAMCS-AMP-800M-2200M-40dB-41dBm-x	800MHz-2200MHz	40dB	41dBm	28VDC/230VAC
AAMCS-AMP-800M-2200M-40dB-41dBm-x	800MHz-2200MHz	40dB	41dBm	28VDC/230VAC

AMPLIFIERS 20-30 W

REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-300M-1000M-40dB-43dBm-x	300MHz-1000MHz	40dB	43dBm	28VDC/230VAC
AAMCS-AMP-400M-4000M-35dB-43dBm-x	400MHz-4000MHz	35dB	43dBm	28VDC/230VAC
AAMCS-AMP-2000M-4500M-40dB-43dBm-x	2000MHz-4500MHz	40dB	43dBm	28VDC/230VAC
AAMCS-AMP-2000M-6000M-40dB-43dBm-x	2000MHz-6000MHz	40dB	43dBm	28VDC/230VAC
AAMCS-AMP-14.4G-15.4G-35dB-43dBm-x	14.4GHz-15.4GHz	35dB	43dBm	28VDC/230VAC
AAMCS-AMP-6700M-7900M-45dB-44dBm-x	6700MHz-7900MHz	45dB	44dBm	28VDC/230VAC
AAMCS-AMP-400M-4000M-30dB-45dBm-x	400MHz-4000MHz	30dB	45dBm	28VDC/230VAC
AAMCS-AMP-2000M-6000M-50dB-45dBm-x	2000MHz-6000MHz	50dB	45dBm	28VDC/230VAC
AAMCS-AMP-2500M-6000M-50dB-45dBm-x	2500MHz-6000MHz	50dB	45dBm	28VDC/230VAC
AAMCS-AMP-6G-12G-45dB-45dBm-x	6GHz-12GHz	45dB	45dBm	28VDC/230VAC

AMPLIFIERS 50-150 W

REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-0001M-0250M-50dB-47dBm-x	1MHz-250MHz	50dB	47dBm	28VDC/230VAC
AAMCS-AMP-0400M-2200M-45dB-47dBm-x	400MHz-2200MHz	45dB	47dBm	28VDC/230VAC
AAMCS-AMP-0800M-4200M-50dB-47dBm-x	800MHz-4200MHz	50dB	47dBm	28VDC/230VAC
AAMCS-AMP-2000M-6000M-50dB-47dBm-x	2000MHz-6000MHz	50dB	47dBm	28VDC/230VAC
AAMCS-AMP-2500M-6000M-50dB-47dBm-x	2500MHz-6000MHz	50dB	47dBm	28VDC/230VAC
AAMCS-AMP-5.8G-8G-50dB-47dBm-x	5.8GHz-8GHz	50dB	47dBm	28VDC/230VAC
AAMCS-AMP-0030M-2500M-45dB-50dBm-x	30MHz-2500MHz	45dB	50dBm	28VDC/230VAC
AAMCS-AMP-0030M-2700M-45dB-50dBm-x	30MHz-2700MHz	45dB	50dBm	28VDC/230VAC
AAMCS-AMP-0700M-2700M-50dB-50dBm-x	700MHz-2700MHz	50dB	50dBm	28VDC/230VAC
AAMCS-AMP-0080M-0800M-50dB-52dBm-x	80MHz-800MHz	50dB	52dBm	28VDC/230VAC

AMPLIFIERS 200-500 W

REFERENCE	FREQUENCY	GAIN	POWER	POWER SUPPLY
AAMCS-AMP-2500M-6000M-50dB-53dBm-x	2.5GHz-6GHz	50dB	53dBm	28VDC/230VAC
AAMCS-AMP-2G-6G-50dB-53dBm-x	2GHz-6GHz	50dB	53dBm	28VDC/230VAC
AAMCS-AMP-0020M-0500M-55dB-56dBm-x	20MHz-500MHz	55dB	56dBm	28VDC/230VAC

Passive components up to 50 GHz

Unidirectional Couplers

The Directional and Hybrid couplers offered by AA MCS are designed for both commercial and military applications. Models are available in connectorized SMA, BNC, Type N, TNC (option) packages, depending on the frequency. All units are designed and manufactured to ensure statistical control of important parameters such as insertion loss and input/output return loss, with power up to more than 1 kWatt.

OCTAVE BAND 30W

REFERENCE	FREQUENCY	COUPLING	IL	DIRECTIVITY	VSWR	CONNECTORS
AAMCS-UDC-470M-870M-6dB-30W-Nf-Nf	470-870MHz	6 dB	1.50dB	20dB	1.20:1	N
AAMCS-UDC-470M-870M-10dB-30W-Nf-Nf	470-870MHz	10 dB	0.80 dB	20 dB	1.20:1	N
AAMCS-UDC-1G-2G-10dB-Sf	1-2 GHz	10 dB	0.65 dB	20 dB	1.20:1	SMA
AAMCS-UDC-1G-2G-20dB-Sf	1-2 GHz	20 dB	0.25 dB	20 dB	1.20:1	SMA
AAMCS-UDC-2G-4G-10dB-Sf	2-4 GHz	10 dB	0.65 dB	20 dB	1.30:1	SMA
AAMCS-UDC-2G-4G-20dB-Sf	2-4 GHz	20 dB	0.25 dB	20 dB	1.30:1	SMA
AAMCS-UDC-2G-6G-20dB-Sf	2-6 GHz	20 dB	0.45 dB	15 dB	1.30:1	SMA
AAMCS-UDC-4G-8G-10dB-Sf	4-8 GHz	10 dB	0.80 dB	20 dB	1.35:1	SMA

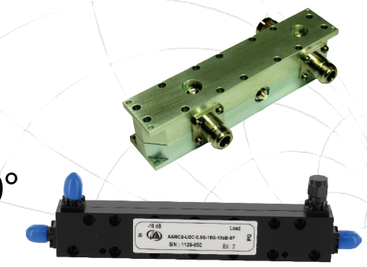
BROADBAND 30W

REFERENCE	FREQUENCY	COUPLING	IL	DIRECTIVITY	VSWR	CONNECTORS
AAMCS-UDC-0.5G-2G-10dB-Sf	0.5-2 GHz	10 dB	0.8 dB	18 dB	1.20:1	SMA
AAMCS-UDC-1G-3.5G-6dB-Sf	1-3.5 GHz	6 dB	1.80 dB	22 dB	1.20:1	SMA
AAMCS-UDC-1G-3.5G-10dB-Sf	1-3.5 GHz	10 dB	0.70 dB	22 dB	1.20:1	SMA
AAMCS-UDC-1G-3.5G-20dB-Sf	1-3.5 GHz	20 dB	0.35 dB	23 dB	1.20:1	SMA
AAMCS-UDC-1G-4G-6dB-Sf	1-4 GHz	6 dB	1.80 dB	20 dB	1.30:1	SMA
AAMCS-UDC-1G-4G-10dB-Sf	1-4 GHz	10 dB	0.80 dB	17 dB	1.30:1	SMA
AAMCS-UDC-1G-4G-20dB-Sf	1-4 GHz	20 dB	0.40 dB	17 dB	1.30:1	SMA
AAMCS-UDC-6G-18G-6dB-Sf	6-18 GHz	6 dB	2.00 dB	15 dB	1.40:1	SMA
AAMCS-UDC-6G-18G-10dB-Sf	6-18 GHz	10 dB	1.20 dB	15 dB	1.40:1	SMA
AAMCS-UDC-6G-18G-20dB-Sf	6-18 GHz	20 dB	0.70 dB	12 dB	1.40:1	SMA
AAMCS-UDC-6G-18G-30dB-Sf	6-18 GHz	30 dB	0.70 dB	12 dB	1.40:1	SMA

ULTRA BROADBAND 30W

REFERENCE	FREQUENCY	COUPLING	IL	DIRECTIVITY	VSWR	CONNECTORS
AAMCS-UDC-0.5G-8G-10dB-Sf	0.5-8 GHz	10 dB	1.30 dB	16 dB	1.35:1	SMA
AAMCS-UDC-0.5G-8G-20dB-Sf	0.5-8 GHz	20 dB	0.90 dB	16 dB	1.35:1	SMA
AAMCS-UDC-1G-12.4G-20dB-Sf	1-12.4 GHz	20 dB	1.10 dB	15 dB	1.50:1	SMA
AAMCS-UDC-2G-18G-6dB-Sf	2-18 GHz	6 dB	2.40 dB	12 dB	1.40:1	SMA
AAMCS-UDC-2G-18G-10dB-Sf	2-18 GHz	10 dB	1.30 dB	12 dB	1.40:1	SMA
AAMCS-UDC-2G-18G-20dB-Sf	2-18 GHz	20 dB	1.10 dB	12 dB	1.40:1	SMA
AAMCS-UDC-0.5G-18G-10dB-Sf	0.5-18 GHz	10 dB	1.50 dB	12 dB	1.50:1	SMA
AAMCS-UDC-0.5G-18G-20dB-Sf	0.5-18 GHz	20 dB	1.50 dB	12 dB	1.50:1	SMA
AAMCS-UDC-0.5G-26.5G-10dB-Sf	0.5-26.5 GHz	10 dB	1.80 dB	10 dB	1.50:1	SMA
AAMCS-UDC-0.5G-26.5G-20dB-Sf	0.5-26.5 GHz	20 dB	1.50 dB	10 dB	1.50:1	SMA
AAMCS-UDC-1G-22G-10dB-Sf	1-22 GHz	10 dB	1.50 dB	12 dB	1.50:1	SMA
AAMCS-UDC-10G-40G-8dB-2.9f	10-40 GHz	8 dB	1.70 dB	10 dB	1.70:1	2.9 mm
AAMCS-UDC-10G-40G-10dB-2.9f	10-40 GHz	10 dB	1.70 dB	10 dB	1.70:1	2.9 mm
AAMCS-UDC-1G-40G-10dB-2.9f	1-40 GHz	10 dB	2.00 dB	10 dB	1.70:1	2.9 mm
AAMCS-UDC-1G-44G-10dB-2.9f	1-44 GHz	10 dB	2.40 dB	10 dB	1.70:1	2.9 mm

Unidirectional and Hybrid Couplers 90°



OCTAVE BAND 200W

REFERENCE	FREQUENCY	COUPLING	IL	DIRECTIVITY	VSWR	CONNECTORS
AAMCS-UDC-470M-870M-6dB-200W-Nf-Nf	470-870 MHz	6 dB	1.50 dB	20 dB	1.20:1	N
AAMCS-UDC-470M-870M-10dB-200W-Nf-Nf	470-870 MHz	10 dB	0.80 dB	20 dB	1.20:1	N
AAMCS-UDC-470M-870M-30dB-250W-Nf-BNCf	470-870 MHz	30 dB	0.15 dB	23 dB	1.15:1	N / BNC
AAMCS-UDC-7G-11G-40dB-TNCm1-TNCf2-Sf3	7-11 GHz	40 dB	0.5 dB	14 dB	1.50:1	TNC / SMA

OCTAVE BAND 1kW

REFERENCE	FREQUENCY	COUPLING	IL	DIRECTIVITY	VSWR	CONNECTORS
AAMCS-UDC-470M-870M-6dB-1kW-716f	470-870 MHz	6 dB	1.50 dB	20 dB	1.20:1	7/16

Hybrid Couplers 90°

OCTAVE BAND, 30W, SMA CONNECTORS

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-300M-500M-30W-Sf	300-500MHz	0.5dB	0.5dB	3°	20dB	1.20
AAMCS-PHD-870M-2200M-30W-Sf	870-2200MHz	0.5dB	0.5dB	2.5°	23dB	1.20
AAMCS-PHD-1G-2.7G-30W-Sf	1-2.7GHz	0.5dB	0.5dB	2.5°	18dB	1.20
AAMCS-PHD-2G-4G-30W-Sf	2-4GHz	0.5dB	0.6dB	5°	20dB	1.20

BROADBAND, 30W, SMA CONNECTORS

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-1G-4G-30W-Sf	1-4GHz	0.6dB	0.8dB	5°	17dB	1.35
AAMCS-PHD-10G-26.5G-30W-Sf	10-26.5GHz	1.5dB	0.6dB	7°	15dB	1.60

ULTRA BROADBAND, 30W, SMA CONNECTORS

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-0.5G-4G-30W-Sf	0.5-4GHz	1.5dB	1.8dB	6°	17dB	1.40
AAMCS-PHD-2G-18G-30W-Sf	2-18GHz	1.4dB	1.3dB	10°	17dB	1.35

30W, N CONNECTORS

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-470M-860M-30W-Nf	470-870 MHz	0.5dB	1dB	3°	20dB	1.20

80W, SMT

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-2G-4G-80W-SMT	2-4 GHz	0.3dB	0.8dB	5°	18dB	1.30

250W, N CONNECTORS

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-470M-860M-250W-Nf	470-870 MHz	0.15dB	0.5dB	3°	23dB	1.15

1kW, 7/16 CONNECTORS

REFERENCE	FREQUENCY	IL	AMPLITUDE BAL	PHASE BAL	ISOLATION	VSWR
AAMCS-PHD-470M-860M-1KW-716f	470-870 MHz	0.15dB	0.5dB	5°	23dB	1.15

Passive components up to 50 GHz

Power Dividers

The Power Dividers offered by AA MCS are designed for both commercial and military applications on range DC-50GHz.
Models are available in connectorized SMA, N, TNC (option) packages, depending on the frequency.
All units are designed and manufactured to ensure statistical control of important parameters such as insertion loss and input/output return loss, with power up to more than 1 kWatt..

2-WAY POWER DIVIDER/COMBINER, OCTAVE BAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-2W-470M-860M-10W-Sf	470-860MHz	0.5dB	25dB	0.2dB	2°	1.20:1
AAMCS-PWD-2W-1G-3G-10W-Sf	1-3GHz	0,5dB	20dB	0,3dB	3°	1,30:1
AAMCS-PWD-2W-2G-4G-10W-Sf	2-4GHz	0.3dB	18dB	0.3dB	3°	1.30:1
AAMCS-PWD-2W-3G-6G-10W-Sf	3-6GHz	0.6dB	18dB	0.6dB	5°	1.30:1
AAMCS-PWD-2W-4G-6G-HI-30W-Sf	4-6GHz	0.5dB	25dB	0.15dB	2°	1.20:1
AAMCS-PWD-2W-4G-8G-10W-Sf	4-8GHz	0.6dB	18dB	0.6dB	5°	1.30:1
AAMCS-PWD-2W-7G-12,4G-30W-Nf	7-12,4GHz	0.5dB	18 dB	0,4dB	5°	1.40:1
AAMCS-PWD-2W-22G-40G-10W-2.9f	22-40GHz	1.7dB	12dB	0.8dB	12°	1.80:1

2-WAY POWER DIVIDER/COMBINER, BROADBAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-2W-2G-6G-10W-Sf	2-6GHz	0.4dB	18dB	0.2dB	2.5°	1.35:1
AAMCS-PWD-2W-5G-18G-10W-Sf	5-18GHz	0.6dB	18dB	0.2dB	5°	1.40:1
AAMCS-PWD-2W-12G-44G-10W-2.9f	12-44GHz	1.7dB	12dB	0.8dB	12°	1.80:1

2-WAY POWER DIVIDER/COMBINER, ULTRA BROADBAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-2W-0.3G-3G-10W-Sf	0.3-3GHz	0.8dB	20dB	0.4dB	6°	1.30:1
AAMCS-PWD-2W-0.5G-6G-10W-Sf	0.5-6GHz	0.8dB	18dB	0.2dB	5°	1.35:1
AAMCS-PWD-2W-2G-18G-10W-Sf	2-18GHz	1.2dB	18dB	0.3dB	5°	1.40:1
AAMCS-PWD-2W-0.5G-13G-10W-Sf	0.5-13GHz	2.6dB	15dB	0.4dB	6°	1.60:1
AAMCS-PWD-2W-0.5G-18G-10W-Sf	0.5-18GHz	1.7dB	15dB	0.6dB	10°	1.50:1

Power Combiners

4-WAY POWER DIVIDER/COMBINER, OCTAVE BAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-4W-0.3G-0.5G-30W-Sf	300-500MHz	0.5dB	25dB	0.5dB	5°	1.20:1
AAMCS-PWD-4W-470M-860M-10W-Sf	470-860MHz	1.0dB	20dB	0.1dB	1°	1.30:1
AAMCS-PWD-4W-1G-2G-10W-Sf	1-2GHz	0.5dB	18dB	0.3dB	4°	1.50:1
AAMCS-PWD-4W-1.5G-2.5G-10W-Sf	1.5-2.5GHz	0.8dB	18dB	0.4dB	5°	1.30:1
AAMCS-PWD-4W-2G-4G-30W-Sf	2-4GHz	0.7dB	18dB	0.3dB	5°	1.40:1
AAMCS-PWD-4W-4G-6G-HI-30W-Sf	4-6GHz	1.0dB	25dB	0.2dB	3°	1.30:1

4-WAY POWER DIVIDER/COMBINER, BROADBAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-4W-1G-3G-30W-Sf	1-3GHz	0.7dB	20dB	0.5dB	5°	1.30:1
AAMCS-PWD-4W-2G-6G-10W-Sf	2-6GHz	0.6dB	17dB	0.3dB	4°	1.40:1
AAMCS-PWD-4W-5G-18G-10W-Sf	5-18GHz	1.2dB	16dB	0.5dB	8°	1.40:1
AAMCS-PWD-4W-10G-40G-10W-2,9f	10-40GHz	2dB	10dB	1dB	12°	2:1
AAMCS-PWD-4W-18G-40G-10W-2.9f	18-40GHz	2dB	10dB	1dB	12°	2:1

4-WAY POWER DIVIDER/COMBINER, ULTRA BROADBAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-4W-0.5G-2.5G-10W-Sf	0.5-2.5GHz	1.5dB	20dB	0.5dB	10°	1.25:1
AAMCS-PWD-4W-0.3G-3G-10W-Sf	0.3-3GHz	1.5dB	18dB	0.5dB	10°	1.40:1
AAMCS-PWD-4W-0.5G-6G-10W-Sf	0.5-6GHz	1.6dB	16dB	0.3dB	8°	1.50:1
AAMCS-PWD-4W-2G-18G-10W-Sf	2-18GHz	2dB	18dB	0.8dB	10°	1.50:1
AAMCS-PWD-4W-0.5G-18G-10W-Sf	0.5-18GHz	4dB	12dB	1.2dB	12°	1.70:1
AAMCS-PWD-4W-10G-40G-10W-2.9f	10-40GHz	2dB	10dB	1dB	12°	2:1

8-WAY POWER DIVIDER/COMBINER, OCTAVE BAND

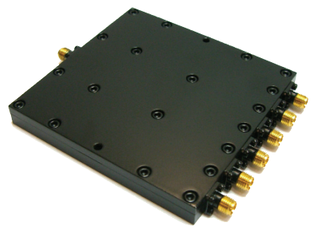
REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-8W-1G-2G-30W-Sf	1-2GHz	0,9dB	17dB	0.4dB	8°	1.5:1
AAMCS-PWD-8W-18G-40G-10W-2,9f	18-40GHz	5dB	10dB	1.5dB	12°	2:1

8-WAY POWER DIVIDER/COMBINER, BROADBAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-8W-5G-18G-30W-Sf	5-18GHz	2dB	14dB	1dB	16°	1.8:1

8-WAY POWER DIVIDER/COMBINER, ULTRA BROADBAND

REFERENCE	FREQUENCY	IL	ISOLATION	AMPLITUDE BAL	PHASE BAL	VSWR
AAMCS-PWD-8W-2G-18G-10W-Sf	2-18GHz	3dB	17dB	1dB	15°	1.8:1



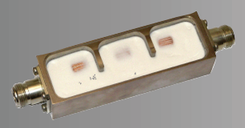
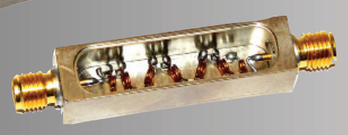
Passive components up to 50 GHz
Filters

Cavity filters

AA MCS offers different cavity filters' configurations: standard coaxial cavities as well as Combline and Interdigital.
These cavity structures give high selectivity, narrow band filters with very low passband insertion loss. They are designed using aluminium as the base metal to reduce the weight, and silver plated to reduce passband loss.

Combline filters & Interdigital
These topologies are manufactured as an array of individual coupled resonators build in a single housing structure. They use machined rods from solid giving the advantage of high Q and low loss performances.

Lumped Element Filters – 5 MHz to 5 GHz
Lumped Element filters uses resonators with discrete capacitors and inductors soldered.
AA MCS offers a complete line of Lumped Element filters with a broad selection of frequencies, packages, and designs as highpass, lowpass, bandpass, bandreject.
In addition to these standard filters, AA MCS engineers custom design to fulfil more accurate performance requirements.
Lumped Element topology gives optimal performance where the size is critical.
This technology offers a variety of electrical designs circuits achievable, such as coupled tank, mesh, resonant ladder, helical, and in some cases the combination of these ones is used. Also, according to the different transfer functions (such as Chebychev, Bessel, Elliptical).

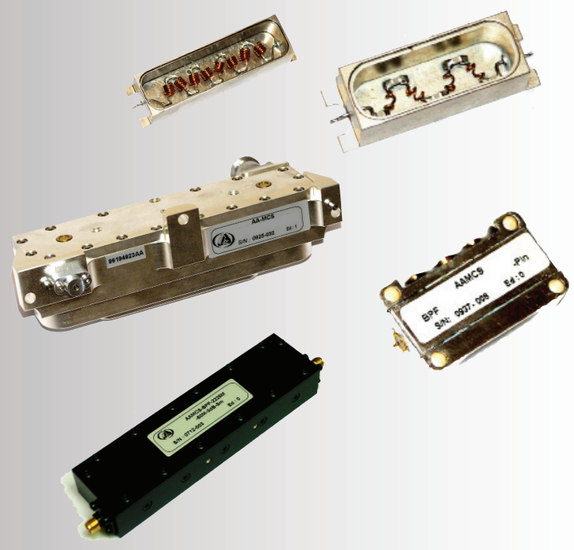
Tubular Filters - 20 MHz to 12 GHz

AA MCS offers tubular filters for lowpass and bandpass applications. Due to their mechanical configuration, they have inherently broad stopbands with very high attenuation levels. These filters are suitable for harmonic rejection requirements.
A low ripple Chebychev transfer function in standard configuration is usually used and offers the best compromise of low loss, low VSWR and high selectivity.

Ceramic filters


AA MCS designs and manufactures in either Bandpass or Bandreject configurations ceramic filters for typically commercial wireless in the PCS and GSM bands, and military applications.
In addition to the standard products line, AA MCS offers custom designed devices for your specific application.

MINIATURE FILTERS -Direct soldering on boards
Miniature Lumped Element filters with discrete capacitors and inductors soldered, to be directly implemented on boards.



Fast pin diodes switches up to 18 GHz
Switches

AA-MCS proposes a new products familiy with the pin diode switches.
Up to 18GHz for power up to 150W CW "hot switch".
With a switching speed close to 1 microsecond, these switches can operate for high power antennas switching or high power switching matrix.

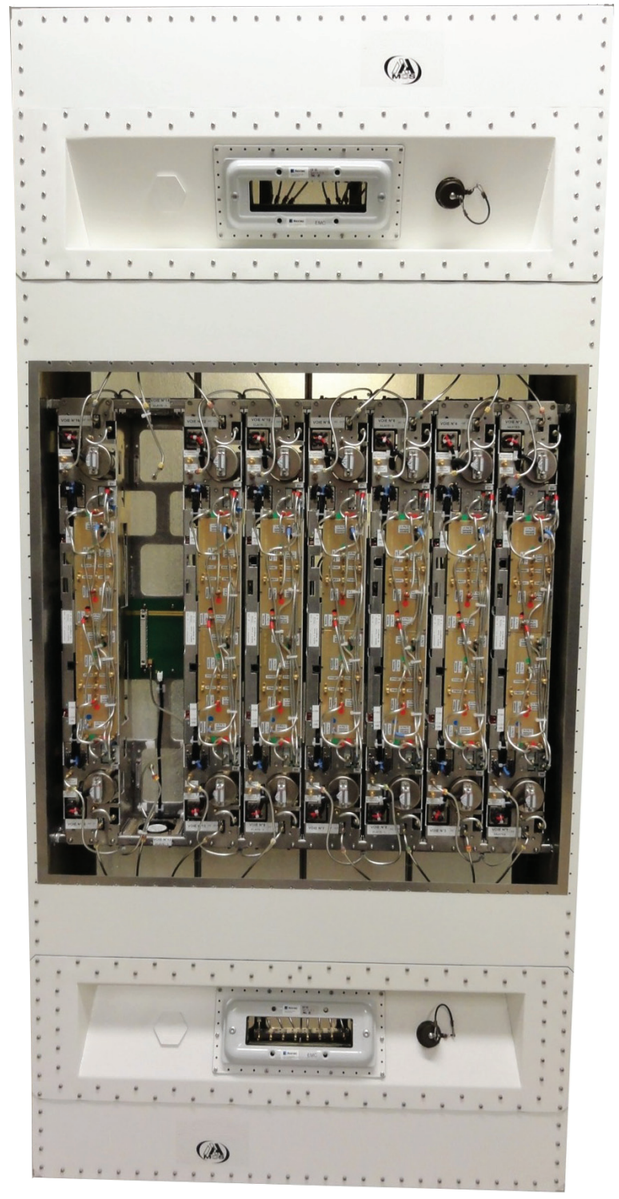
SPDT Switches

REFERENCE	FREQUENCY	IL MAX	ISOLATION	POWER	SWITCHING SPEED
AAMCS-SWT-SPDT-10M-4000M-20dBm	10MHz-4000MHz	2.5dB	60dB	20dBm	10ns
AAMCS-SWT-SPDT-20M-1000M-50dBm	20MHz-1000MHz	0.8dB	45dB	50dBm	10µs
AAMCS-SWT-SPDT-20M-1000M-52dBm	20MHz-1000MHz	0.8dB	45dB	52dBm	10µs
AAMCS-SWT-SPDT-400M-4000M-50dBm	400MHz-4000MHz	1dB	30dB	50dBm	5µs
AAMCS-SWT-SPDT-400M-4000M-52dBm	400MHz-4000MHz	1dB	30dB	52dBm	5µs
AAMCS-SWT-SPDT-1000M-6000M-50dBm	1000MHz-6000MHz	1.5dB	30dB	50dBm	5µs
AAMCS-SWT-SPDT-0010M-0018G-20dBm	10MHz-18GHz	5dB	45dB	20dBm	10ns

SP3T Switches

REFERENCE	FREQUENCY	IL MAX	ISOLATION	POWER	SWITCHING SPEED
AAMCS-SWT-SP3T-20M-1000M-50dBm	20MHz-1000MHz	1dB	45dB	50dBm	10µs
AAMCS-SWT-SP3T-400M-4000M-50dBm	400MHz-4000MHz	1dB	30dB	50dBm	5µs


-10 dB
Load
In
Out
-20 dB
S/N : 0846-003
AA-MCS
PWD-2W-0.3G-3G-10W-Sf
S/N : 0712-001
Ed : 0
AAMCS-PWD-4W-2G-18G-10W-Sf
S/N : 0738-001
AA-MCS
IN1
IN2
PHD-2G-18G-SMPm
S/N : 0000-000
1/2 IN1
1/2 IN2



Radio Frequency and Microwave components for unlimited developments and solutions...

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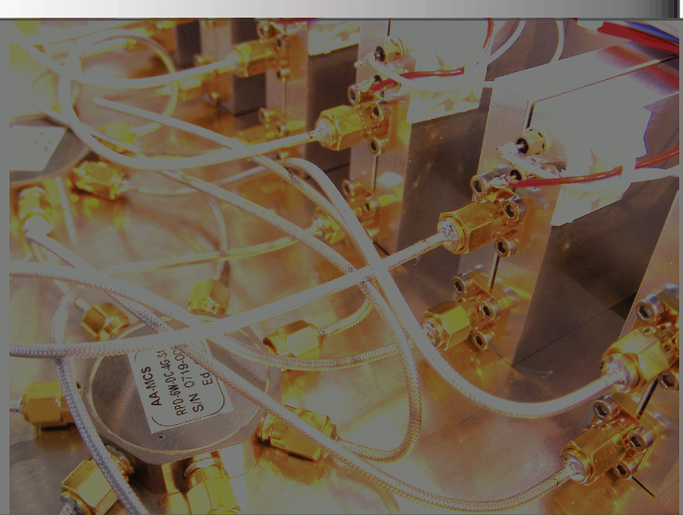

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