

**Leading
Heritage &
Innovation
for T&M**



**UMS propose innovative solutions for high quality test equipments
and challenging applications ranging from DC to THz:**

Lab Equipment • Portable Field Test •
Over The Air Measurement Systems • Production Automated Test Equipment

Technologies

Full Foundry services:

GaN/SiC HEMT process

- GH15: DC to 42GHz
- GH25: DC to 20GHz

GaAs process

- BES Schottky diode to THz
- PH15/10 pHEMT low noise
- PPH 15x pHEMT linear power
- HP07 linear MESFET
- ULRC passive

Package

- QFN 3x3 to 8x8mm²
- SiP/BGA

Wideband Products

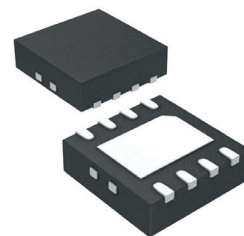
Catalog Off the Shelf

- Detector up to 44GHz
- Switches up to 26GHz
- Linear Atten. up to 45GHz
- Digital Atten. up to 35GHz
- LNA up to 105GHz
- MPA up to 86GHz
- Wilkinson to 35GHz

ASIC on demand

Innovations

- Multiband chipset for 5G
- New mmW LNA Q band
- New wideband V band LNA
- Ultra compact power divider



Build your own solution with UMS

www.ums-rf.com

Solutions for Test & Measurement

BUILDING BLOCKS FOR DC-6GHz

GaN Transistor	Freq (GHz)	small signal Gain (dB) @ freq (GHz)	Power (W)	PAE % @ Freq (GHz)
CHK015AaQIA	Up to 4	18@3	20	55@3

MPA	Freq (GHz)	Gain (dB)	IP3 (dBm)	OP1dB (dBm)
CHA4220-QGG	0.5-20	17	28	20

HPA	Freq (GHz)	Gain (dB)	OP1dB (dBm)	Psat (dBm)
CHA6015-99F	2-8	18.5	36.5	37.5

VVA	Freq (GHz)	Ins. Loss (dB)	Amplitude Ctrl (dB)	IP1dB (dBm)
CHT4660-QAG	DC-16	2	30	24

Att. Digital	Freq (GHz)	Ins. Loss (dB)	ATT.range (dB)	IP1dB (dBm)
CHT4012-QDG	DC-6	2.5	-0.7/+0.4	20

Switch	Freq (GHz)	Ins. Loss (dB)	IP-1 dB (dBm)	Isolation (dB)
CHS5105-QAG	DC-4	0.5	30	35
CHS7012-99F	DC-12	1.4	40.5	35

BUILDING BLOCKS FOR 6-24GHz

LNA/MPA	Freq (GHz)	Gain (dB)	NF (dBm)	OP1dB (dBm)
CHA3024-QGG	2-22	15	3	18
CHA4350-QDG	5.5-11.7	26	5.5	24
CHA5618-99F	6-18	22	-	26

HPA	Freq (GHz)	Gain (dB)	PAE%	Psat (dBm)
CHA7618-99F	5-18	30	20	40
CHA8618-99F	6-18	33	26	42.5
CHA7063-QCB	12.7-20	20	26	37

Power Detector	Freq (GHz)	Ins. Loss (dB)	Dyn range (dB)	Type
CHE1260-QAG	10-27	1	30	Bidirectionnal

VVA	Freq (GHz)	Ins. Loss (dB)	Amplitude Ctrl (dB)	IP1dB (dBm)
CHT4690-QAG	5-30	4	31	25

Att. Digital	Freq (GHz)	Ins. Loss (dB)	ATT. range (dB)	IP1dB (dBm)
CHT3029-QEG	DC-30	5	+/-0.5	20

Switch	Freq (GHz)	Ins. Loss (dB)	Isolation (dB)	IP1dB (dBm)
CHS5100-99F	DC-20	2.1	30	20
CHS8618-99F	6-18	1.3	34	42
CHS2411-QDG	23-26	2.9	35	23.5

Power Div.	Freq (GHz)	Ins. Loss (dB)	Isolation (dB)	Return Loss (dB)
CHW4212-QKA	8-22	0.5	20	>20
CHW4213-QAG	15-25	0.5	20	>18

BUILDING BLOCK 24-50GHz

LNA	Freq (GHz)	Gain (dB)	NF (dBm)	OP1dB (dBm)
CHA2362-98F	26-40	22	2	9
CHA2595-QDG	27.5-43.5	19.5	2.3	11

MPA	Freq (GHz)	Gain (dB)	IP3 (dBm)	OP1dB (dBm)
CHA3409-98F	25-45	23	26	19

VVA	Freq (GHz)	Ins. Loss (dB)	Amplitude Ctrl (dB)	IP1dB (dBm)
CHT4699-QDG	36-44	4	30	20

Power Div.	Freq (GHz)	Ins. Loss (dB)	Isolation (dB)	Return Loss (dB)
CHW4312-QKA	22-34	0.75	20	>15
CHW4313-QAG	24-35	0.6	20	>16

BUILDING BLOCKS FOR 50-71GHz

LNA	Freq (GHz)	Gain (dB)	NF (dBm)	OP1dB (dBm)
CHA2352-98F	46-52	21	3.5	12
CHA2368-98F	50-71	20	3.5	10
CHA2159-99F	55-65	20	4	14

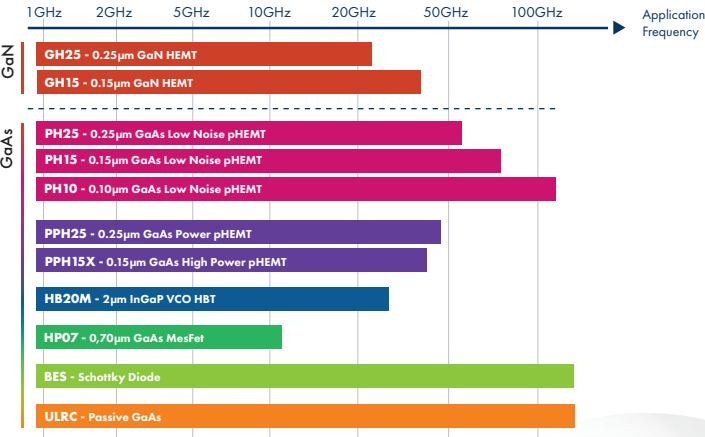
BUILDING BLOCKS FOR 71-105GHz

LNA	Freq (GHz)	Gain (dB)	NF (dBm)	OP1dB (dBm)
CHA2080-98F	71-86	21	3.5	12
CHA1077a98F	76-77	15	4.5	9
CHA1008-99F	80-105	17	6.5	5

MPA	Freq (GHz)	Gain (dB)	IP3 (dBm)	OP1dB (dBm)
CHA3080-98F	71-76	16	25	19
CHA3090-98F	81-86	13	23	17

Mixer	Freq (GHz)	Freq LO (GHz)	Conv. Gain (dB)	IP1dB (dBm)
CHM1080-98F	71-86	34.5-44	-11	10
CHR1080a98F	71-86	34.5-44	8	-10

FOUNDRIY PROCESSES



Additional building blocks on www.ums-rf.com



Check all 24GHz products



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