

MMICs FOR TEST & MEASUREMENT

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

- New GH10 DC to 90GHz
- GH15 DC to 45GHz
- GH25 DC to 20GHz

GaAs process

- PPH25/I5x pHEMT linear Power
- PH25/I5/I0 Low Noise
- BES Schottky diode
- ULRC Power Passive

Plastic Package

- QFN 3x3 to 8x8mm²
- DFN 2x2mm² to 3x4mm²
- SiP

Catalog Off the Shelf

Wideband MMICs

- 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
- Divider/Combiner 8-35GHz

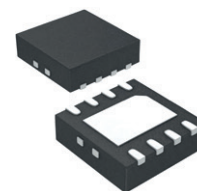
Sub-band

- Front-End 26/28/39GHz

ASIC on demand

Innovative Products

- New Power Amps 2W 2-20 / 20-40GHz
- New LNAs 1.8dB NF 30-44GHz
- LNA family 1.3dB NF 7-32GHz
- Multi-band chipsets for 5G & 5G-A
- Ultra compact power dividers / combiners



FROM OUR TECHNOLOGY **TO YOUR SUCCESS**

www.ums-rf.com

Your MMIC Solutions for Test & Measurement

FOR DC-6GHz

NEW

LNA	Freq (GHz)	Gain (dB)	NF (dB)	OPI dB (dBm)
CHA4220-QGG	0.5-20	17	3	20
CHA3801-QDG	1-2	28	1.5	15

MPA	Freq (GHz)	Gain (dB)	IP3 (dBm)	OPI dB (dBm)
CHA4220-QGG	0.5-20	17	28	20
CHA4105-QDG	2-4	23	-	24

HPA	Freq (GHz)	Gain (dB)	OPI dB (dBm)	Psat (dBm)
CHA6220-QGB	2-20	22	-	33

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

Switch	Freq (GHz)	Ins. Loss (dB)	IP-1 dB (dBm)	Isolation (dB)
CHS5105-QAG	DC-4	0.5	30	35

FOR 6-24GHz



LNA/MPA	Freq (GHz)	Gain (dB)	NF (dB)	OPI dB (dBm)
CHA3024-QGG	2-22	15	3	18
CHA2110-QDG	7-12	19	1.2	10
CHA4350-QDG	5.5-11.7	26	5.5	24
CHA5282-QAG	17-21.5	18.5	-	23
CHA2050-QDG	17-21.5	26	1.3	7
CHA4395-QDG	21-27	22	-	21

HPA	Freq (GHz)	Gain (dB)	PAE%	Psat (dBm)
CHA6220-QGB	2-20	22	18	33
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)	IPI dB (dBm)
CHT4690-QAG	5-30	4	31	25

Switch	Freq (GHz)	Ins. Loss (dB)	Isolation (dB)	IPI dB (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

FOR 24-50GHz



LNA	Freq (GHz)	Gain (dB)	NF (dBm)	OPI dB (dBm)
CHA1351-QAG	24-32	24	1.3	5
CHA1452-QDG	30-44	20	1.8	4
CHA2452-QAG	31-43	24	1.8	8
CHA2352-98F	46-52	21	3.5	12

MPA	Freq (GHz)	Gain (dB)	IP3 (dBm)	OPI dB (dBm)
CHA4396-QDG	24-30	22	-	21
CHA3409-98F	25-45	23	26	19

HPA	Freq (GHz)	Gain (dB)	OPI dB (dBm)	Psat (dBm)
CHA6224-98F/QCB	20-40	21	-	33

VVA	Freq (GHz)	Ins. Loss (dB)	Amplitude Ctrl (dB)	IPI dB (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

Front End	Freq (GHz)	Gain RX (dB)	Gain TX (dB)	Psat TX (dBm)	Case
CHC6054-QQA	24-30	18	28	31	QFN
CHC6094-QDG	37-41	24	23	33	QFN

Power Detector	Freq (GHz)	Ins. Loss (dB)	Dyn range (dB)	Type
CHE1270-QAG	5-44	-	30	wide-band

FOR 50-71GHz

LNA	Freq (GHz)	Gain (dB)	NF (dB)	OPI dB (dBm)
CHA2368-98F	50-71	20	3.5	10

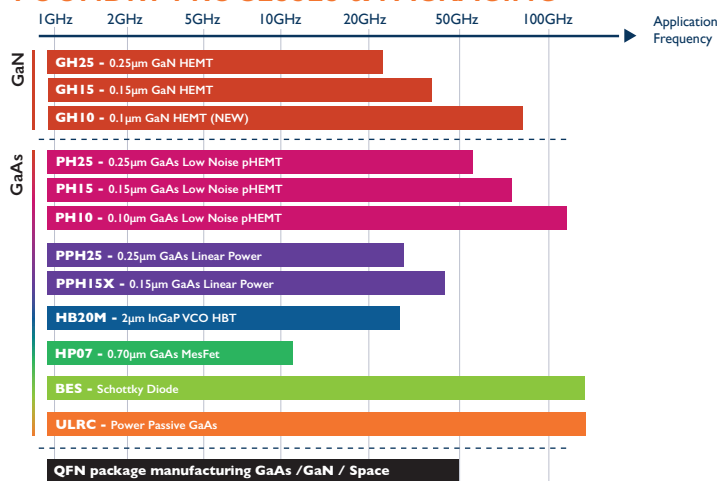
FOR 71-105GHz

LNA	Freq (GHz)	Gain (dB)	NF (dB)	OPI dB (dBm)
CHA2080-98F	71-86	21	3.5	12
CHA1008-99F	80-105	17	6.5	5

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

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

FOUNDRIY PROCESSES & PACKAGING



United Monolithic Semiconductors

www.ums-rf.com

Worldwide distributor: Richardson RFPD - www.richardsonrfpd.com