



# OPAL

Cost-Effective, High-Performance  
GaAs/GaN Amplifiers



**qorvo**  
all around you



# OPAL Cost-Effective, High-Performance GaAs/GaN Amplifiers

Cost-effective, high-performance GaN- and GaAs-based CATV power amplifiers from Qorvo® offer future proof system requirements. This family of CATV power amplifiers support CATV designers in meeting stringent system requirements while lowering overall power consumption up to 20%. These products operate from 45MHz to 1003MHz with extremely low distortion levels and best-in-class input and output return losses around 20dB. By leveraging our industry-leading core competencies, Qorvo helps customers accelerate their next-generation products to market.

## Hybrid & MCM Power Doubler Amplifiers

Min Freq (MHz)	Max Freq (MHz)	Power Gain (dB at Max Freq)	Pout (dBmV at Max Freq)	CTB (dBc)	CSO (dBc)	Vcc (V)	Current (mA)	Package mm x mm	Part Number
45	1003	21	57	-79	-73	12	650	QFN 5x7	TAT8804D1H
45	1218	20.6	58	-79	-78	12	540	QFN 5x7	QPB8808
45	1003	24	61*	-75	-69	24	445	SOT-115J	TAT8888
45	1003	24	60*	-75	-69	24	445	MCM 5x7	TAT9988
45	1003	25	56**	-75	-79	24	420	SOT-115J	RFPD9950
45	1003	25	56**	-72	-70	24	370	SOT-115J	RFPD9951
45	1003	27	56**	-75	-79	24	445	SOT-115J	RFPD9970
45	1003	21-27	53**	-73	-74	24	350	SOIC-16	TAT8857A1H

Distortion channel loading: \* 79 channels NTSC, 75 channels QAM256, -6dB offset, 18dB tilt \*\* 79 channels NTSC, 75 channels QAM256, -6dB offset, 13dB tilt

## Hybrid & MCM Push Pull Amplifiers

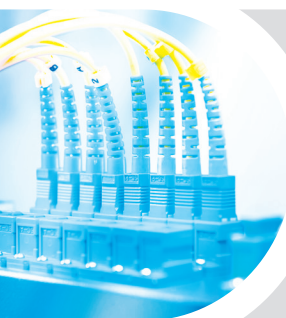
Min Freq (MHz)	Max Freq (MHz)	Power Gain (dB at Max Freq)	Pout (dBmV at Max Freq)	CTB (dBc)	CSO (dBc)	Vcc (V)	Current (mA)	Package mm x mm	Part Number
45	870	34	46	-66	-72	24	240	SOT-115J	S8740340
45	1003	23	46	-60	-70	24	250	SOT-115J	QPA9830
45	1003	28	46	-68	-75	24	250	SOT-115J	RFPD9850
45	1003	27-34	43	-69	-68	24	270	SOIC-16	TAT8858A1H

Distortion channel loading: \* 79 channels NTSC, 75 channels QAM256, -6dB offset, flat

## Hybrid Reverse Amplifiers

Min Freq (MHz)	Max Freq (MHz)	Power Gain (dB at Max Freq)	NF (dB)	CTB (dBc)	CSO (dBc)	Vcc (V)	Current (mA)	Package mm x mm	Part Number
5	65	25.4	3.1	-69*	-70*	24	133	SOT115-J	R0605250L
5	65	30.6	2.0	-70*	-66*	24	195	SOT-115J	R0605300
5	65	30.25	4.1	-64*	-68*	24	133	SOT-115J	R0605300L
5	100	25.5	3.4	-69*	-70*	24	133	SOT-115J	R1005250L
5	100	30.3	4.2	-64*	-68*	24	130	SOT-115J	R1005300L

\* 7 channels, NTSC frequency raster: T7-T13 (7MHz to 43MHz), +50dBmV flat output level



### Features

- Excellent linearity
- Superior return loss performance
- Extremely low distortion
- Optimal reliability
- Low noise
- Unconditionally stable under all terminations
- 24V<sub>DC</sub>
- Suitable for PAL D & NTSC loading

