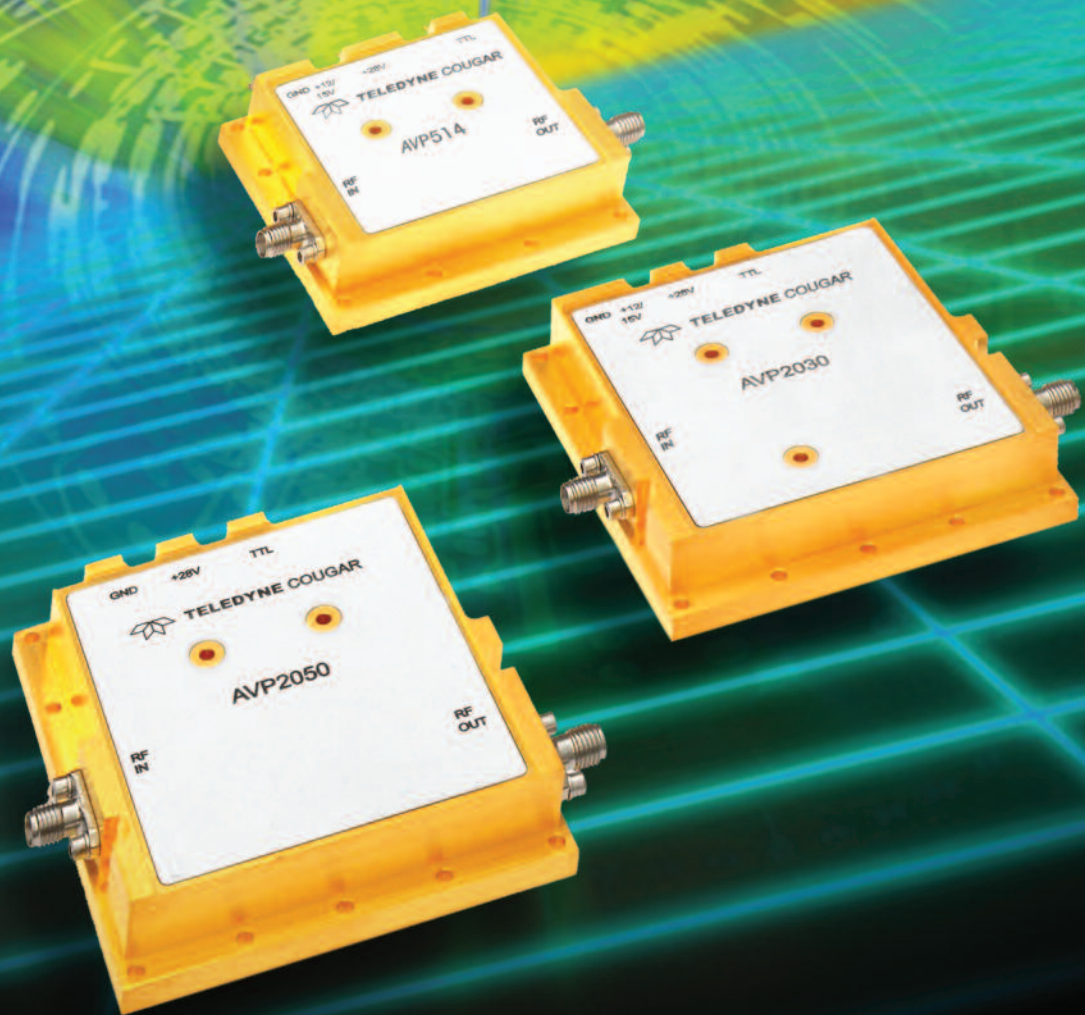


BROADBAND POWER

*A new family of catalog and custom
10 to 50 Watt GaN Amplifiers*



TELEDYNE COUGAR
A Teledyne Technologies Company

BROADBAND POWER AMPLIFIERS

Teledyne Cougar's new line of medium-power broadband amplifiers is a unique family of performance-focused solutions designed for demanding applications. Each design offers engineers the option to select catalog RF performance, or to specify custom-tuned RF performance to meet specific requirements.

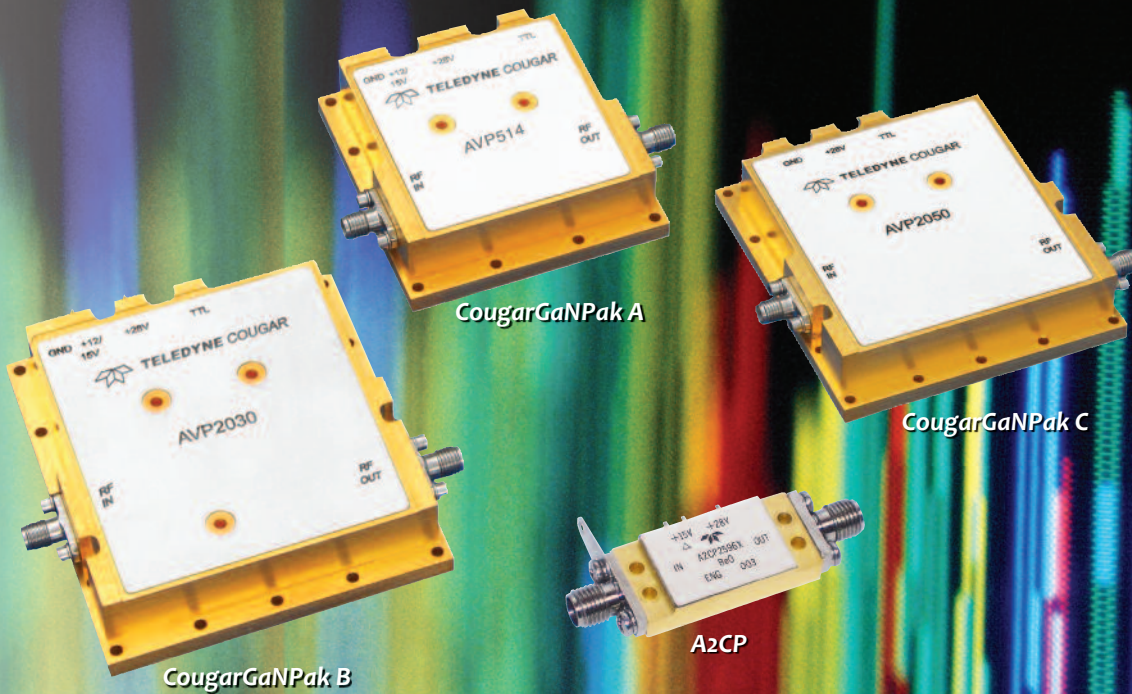
Covering frequencies from 20 MHz to 2600 MHz and operating from -40 to +85°C, each hermetically sealed amplifier uses Gallium Nitride (GaN) technology. The designs include an internal sequencer to assure the proper gate voltage is applied to the FET prior application of voltage to the drain. The higher gain versions include pre-amps, and provide excellent noise figure and IP performance. The small footprint is uniquely suited for applications demanding high performance, high quality, and proven reliability.

MEDIUM POWER BROADBAND AMPLIFIERS

Model	Frequency Range MHz	Gain dB Typ.	Noise Figure dB Typ.	P1dB dBm Typ.	P3dB dBm Typ.	P3dB Watts Typ.	IP3/IP2/ Pout dBm Typ.	Preamp D.C. Volts Nom.	Preamp D.C. mA Max.	D.C. Volt Nom.	DC Amps Q/@P3dB Typ.	Pkg. Type
AVP598	20-400	16.5	2.5	38	43.2	20.9	50/64/40	N/A	N/A	28	0.85/1.5	A
AVP514	20-400	40	3.5*	38	43.2	20.9	50/62/40	12	185	28	1.25/1.95	A
AVP2515	600-2600	17	4.5	35	41	12.6	48/50/37	N/A	N/A	28	0.85/1.50	B
AVP2524	600-2600	41	4.5	35	41	12.6	47/48/37	15	185	28	1.25/1.9	B
AVP2030	650-2200	16	4.5	39	44	25.1	53/65/40	N/A	N/A	28	0.85/2.6	B
AVP2034	650-2200	40	4.5	39	44	25.1	52/62/40	15	370	28	1.25/3.1	B
AVP2050 [^]	900-2000	14	4	42	48	63.1	55/68/43	N/A	N/A	28	1.6/5.50	C

All specifications subject to change. * Freq ≥ 100 MHz ^ Case temp. should not exceed +55°C long term with DC current above 3 amps

- ◆ 20 – 2600 MHz
- ◆ Gains from 16 dB to 40 dB
- ◆ Output Powers from 12 to 63 Watts
- ◆ Noise figures from 2.5 to 4.5 dB
- ◆ IP₃ from 47 to 55 dBm
- ◆ External DC blanking control available on all models
- ◆ Voltage sequencer protection on all models
- ◆ Temperature protection shut-down on high power models (not included in AVP598 / AVP514 models)
- ◆ Small footprint hermetic packages
- ◆ Reliability and performance focused

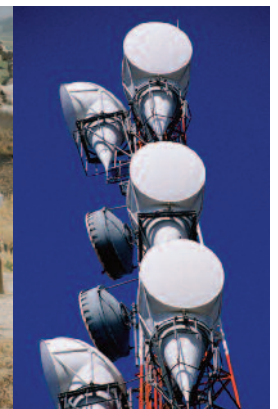


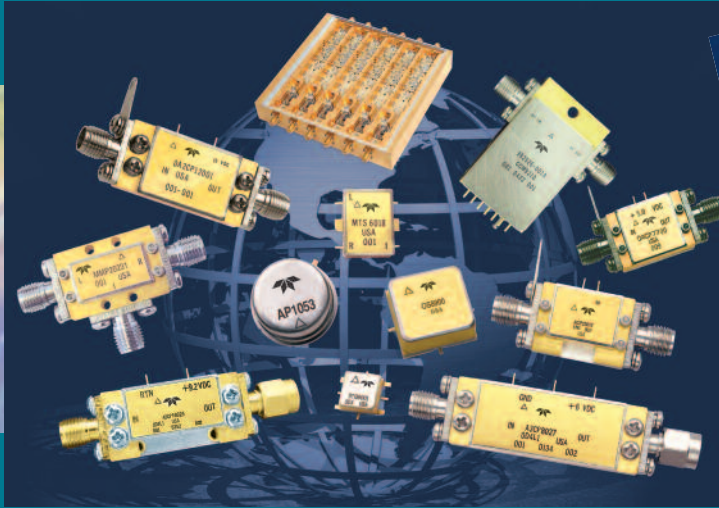
PREAMP DRIVER AMPLIFIERS

Model	Frequency Range MHz	Gain dB Typ.	Noise Figure dB Typ.	P1dB dBm Typ.	P3dB dBm Typ.	P3dB Watts Typ.	IP3/IP2/ Pout dBm Typ.	Preamp D.C. Volts Nom.	Preamp D.C. mA Max.	D.C. Volt Nom.	DC Amps Q/@P3dB Typ.	Pkg. Type
A2CP2595	20-500	24	3*	34	36.2	4.2	45/58/27	12	185	28	0.39/0.47	A2CP
	500-2500	24	3	32.5	34	2.5	40/56/27	12	185	28	0.39/0.47	
A2CP2596	10-500	24	4.8*	36.5	37.5	5.6	48/52/23	15	335	28	0.53/0.75	A2CP
	500-2500	24	4.3	34.5	37.5	5.6	42/48/23	15	335	28	0.53/0.75	

*All specifications subject to change. * Freq ≥ 100 MHz*

- ◆ High Gain 24 dB typical**
- ◆ High Saturated Output Power 6.0 Watts**
- ◆ High Output Power P1dB 3.0 Watts**
- ◆ High Third Order IP +45 dBm**





Serving the military, aerospace and industrial markets for over 22 years, Teledyne Cougar uses leading-edge hybrid technology to offer the broadest selection of performance-focused RF and microwave components, integrated subassemblies, and custom integrated assemblies. Teledyne Cougar's products cover frequencies from 100 KHz to 20 GHz and include cascadable RF amplifiers, voltage-controlled amplifiers, and attenuators, limiters, detectors, frequency doublers, microwave amplifiers, IQ networks, frequency mixers, VCOs, power dividers, switches, and more.

Teledyne Cougar is fully certified to MIL-PRF-38534, Classes H and K. Teledyne Cougar also offers a full line of value-added services, including die testing and up-screening, full element evaluation, quality conformance and qualification testing, and more.

Contact Teledyne Cougar for a copy of Cougar's 700-plus model catalog.



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