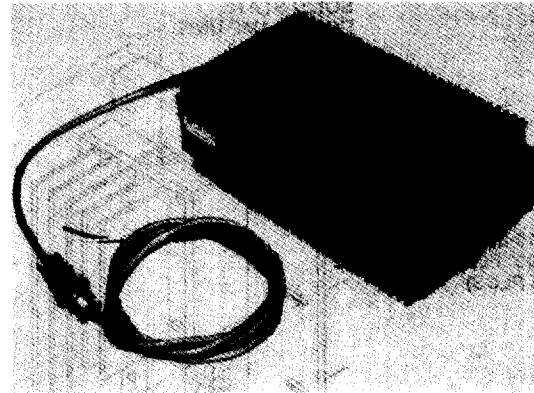

Features

- **High Reliability**
- **Energy Efficiency**
- **FCC Type Accepted**
- **High Channel Loading Capacity**
- **Easy to Install**
- **No Maintenance Required**
- **Cost Competitive**

Narrowband General Purpose Description

Hewlett-Packard's 4, 6, 7, 8 and 11 GHz amplifiers are cost-effective TWTA replacements. Their performance and reliability has been proven by the more than 10,000 units now in use throughout the world. The AWP series uses substantially less input power than a TWT, has more gain thus reducing AM/PM problems due to the lower output needed from the upconverter, and maintains a constant output power over its calculated lifetime (MTBF) of 30 years. In digital systems, at lowered gain levels, AWP amplifiers offer less than 0.25 dB compression with AM/PM of less than 0.25°/dB over the entire band.

AWP Series 3.7 to 11.7 GHz.**CARS Band Description**

This amplifier replaces the klystron tube that is currently used in single-channel AML (SSB) CARS-band (*Community Antenna Relay Service) transmitters for CATV distribution applications. HP's AWP-132200 is a 3 watt linear solid state amplifier that operates in the frequency range of 12.7 to 13.25 GHz with typical gain at approximately 51 dB. The unit runs significantly cooler than the klystron tube and power supply combination, reducing air conditioning costs as well as minimizing maintenance on other electronic equipment, located in the same room as a transmitter.

Amplifier characteristics include exceptional linearity, low higher order IM distortion and low AC power consumption. This design offers months of continuous reliable operation without maintenance adjustments.

AWP—MEDIUM POWER COMMERCIAL COMMUNICATIONS BAND AMPLIFIERS

AWP Series

Guaranteed Specifications @ 25°C Case Temperature

Model	Frequency Response (GHz) Minimum	Power Output for 1 dB Gain Compression (dBm/watts) Minimum	Gain (dB) Min.	Gain Flatness (±dB) Max.	Typical Intercept Point for IM Products (dBm)	Noise Figure (dB) Max.	VSWR (50 ohms) Maximum		Input Power (VDC ±3%)		Case Type
							In	Out	Voltage	Current (mA) Typical	
AWP-42107	3.7-4.2	+25/3	26	2	+35	10	1.2	1.2	+15	500	SPG
AWP-42108	3.7-4.2	+32/1.5	33	2	+40	10	1.2	1.2	+15	1200	SPG
AWP-42109	3.7-4.2	+40/10	41	2	+47	10	1.2	1.2	+15	6000	SPG
AWP-64107	5.925-6.425	+25/3	26	2	+34	10	1.2	1.2	+15	500	SPG
AWP-64108	5.925-6.425	+32/1.5	33	2	+40	10	1.2	1.2	+15	1200	SPG
AWP-64109	5.925-6.425	+40/10	41	2	+46	10	1.2	1.2	+15	6000	SPG
AWP-71107	6.425-7.125	+25/3	26	2	+34	10	1.2	1.2	+15	500	SPG
AWP-71108	6.425-7.125	+32/1.5	33	2	+40	10	1.2	1.2	+15	1200	SPG
AWP-71109	6.425-7.125	+40/10	41	2	+46	10	1.2	1.2	+15	6000	SPG
AWP-77107	7.125-7.725	+25/3	26	2	+34	10	1.2	1.2	+15	500	SPG
AWP-77108	7.125-7.725	+32/1.5	33	2	+40	10	1.2	1.2	+15	1200	SPG
AWP-77109	7.125-7.725	+40/10	41	2	+46	10	1.2	1.2	+15	6000	SPG
AWP-83107	7.725-8.275	+25/3	26	2	+34	10	1.2	1.2	+15	500	SPG
AWP-83108	7.725-8.275	+32/1.5	33	2	+40	10	1.2	1.2	+15	1200	SPG
AWP-83109	7.725-8.275	+40/10	41	2	+47	10	1.2	1.2	+15	6000	SPG
AWP-117107	10.7-11.7	+25/3	26	2	+32	10	1.2	1.2	+15	500	SPG
AWP-117108	10.7-11.7	+32/1.5	33	2	+39	10	1.2	1.2	+15	1200	SPG

Note:

1. Units are available with or without top and/or bottom heatsinks.

AW—CARS BAND POWER AMPLIFIER

AWP Series

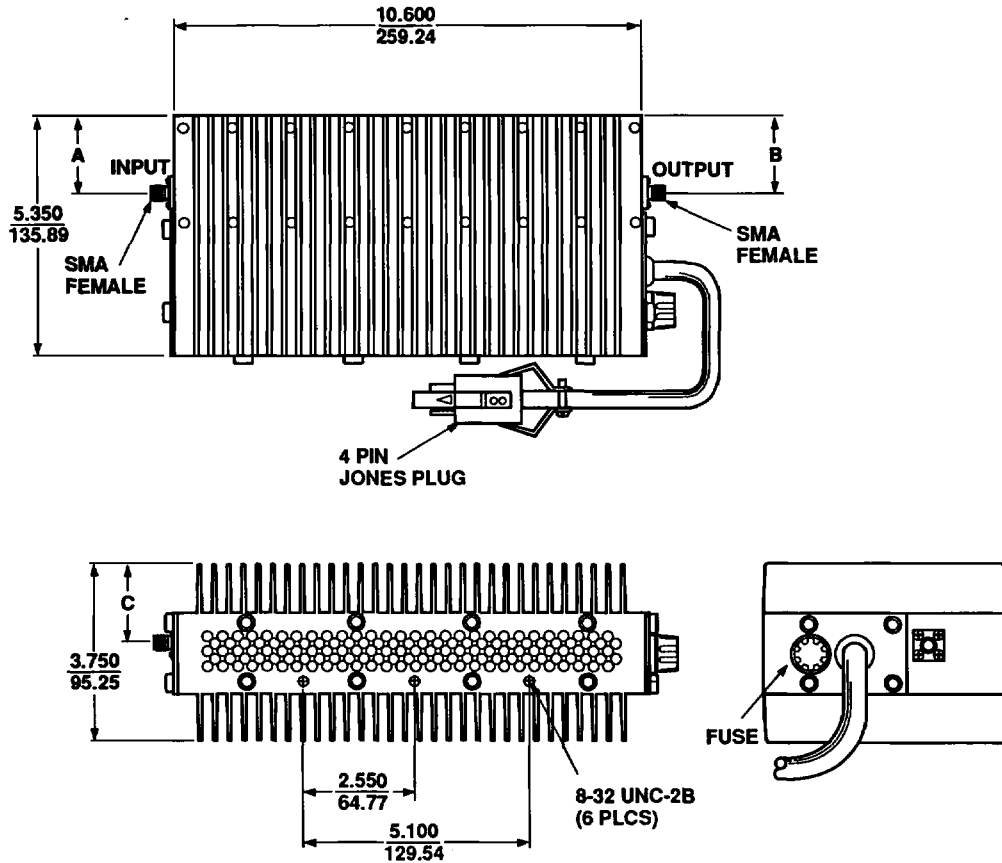
Guaranteed Specifications @ 25°C Case Temperature

Model	Frequency Range (GHz) Minimum	Noise Figure (dB) Maximum	Gain (dB) Min.	Gain Flatness (±dB) Max.	Power Output @ 1 dB Gain Compression (dBm) Minimum	Typ. Intercept Point for Third Order Intermod Products (dBm) Minimum	VSWR (50 ohms) Maximum		Input Power		Case Type
							In	Out	Voltage	Current (mA) Typical	
AWP-132200	12.7-13.15	13	47	1.5	+37	+35	1.25	1.25	105-130 VAC	140 W max	AWP

General Purpose: Narrowband Power Amplifier and CARS Band Preamplifiers

**Case Drawing
SPG**

Narrowband Power Amplifier



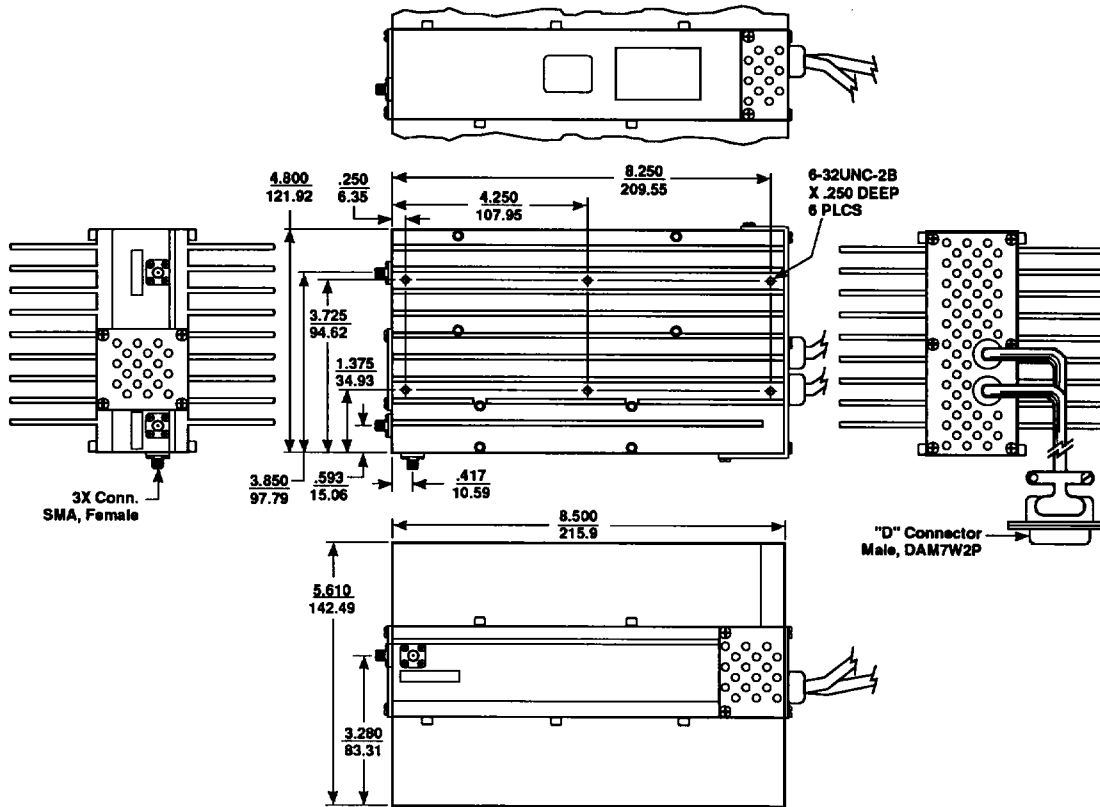
PART NUMBER	DIMENSION			CASE
	A	B	C	
AWP-42107,8,9	1.400	.665	1.907	SPG-1
AWP-64107,8,9	1.580	.674	1.891	SPG-2
AWP-71107,8,9	1.525	.975	1.891	SPG-3
AWP-77107,8,9	1.525	.975	1.891	SPG-3
AWP-83107,8,9	1.525	.975	1.891	SPG-3
AWP-117107,8	1.750	1.645	1.650	SPG-4
AWP-117109	1.475	1.065	1.650	SPG-5

NOTES (UNLESS OTHERWISE SPECIFIED):

1. DIMENSIONS ARE SPECIFIED IN **INCHES**
MM
2. TOLERANCES: .XX $\pm .02$
 ± 0.5
.XXX $\pm .010$
 ± 0.25

Case Drawing
AWP-132200

3 Watt Linear Solid State Amplifier



NOTES (UNLESS OTHERWISE SPECIFIED):

1. DIMENSIONS ARE SPECIFIED IN

INCHES	MM
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2. TOLERANCES:

.XX	± 0.02
	$\pm .5$
.XXX	± 0.010
	$\pm .25$