MODEL CMW1030
30 Watts
460-470 MHz

The Model CMW1030 is a SCPA linear module Solid-State power amplifier module built for CDMA applications. This 30W power amplifier has a nominal 54dB gain and powered by 27VDC with the efficiency higher than 12%. This PA is designed to meet the FCC specifications for digital modulation and comes with the heat sink and LEDs indicating the status of the PA and a -40dB sample port (SMA RF connector in front) for the convenience of operation and monitoring. The PA has a toggle switch in the front for the on/off control. The amplifier is rugged and unconditionally stable, making it suitable for all types of applications.

The amplifier is protected from high temperature, over power, DC failure, VSWR, and device failure. The communication port is available, depending upon requirement, for monitoring and controlling of the PA.

SPECIFICATIONS

FREQUENCY RANGE	460-470 MHz
GAIN	54 dB minimum
GAIN VARIATION OVER FREQUENCY	± -.05dB
GAIN VARIATION OVER TEMPERATURE	± 1dB minimum
AVERAGE OUTPUT POWER	44.8dBm (PAR of 9.8dB)
FORWARD RF SAMLE PORT	-40 dBc (Re: Forward Power)
DYNAMIC RANGE	60dB
INPUT POWER	+5 dBm (Max Power without damage)
RETURN LOSS (INPUT PORT)	15dB
RETURN LOSS (OUTPUT PORT)	10dB
STABILITY	Unconditionally
ACPR @ 750KHZ	-50 dBc (30 KHZ Bandwidth)
ACPR @ 1.98MHZ	-65 dBc (30 KHZ Bandwidth)
2ND HARMONIC	-50 dBc (30 KHZ Bandwidth)
3RD HARMONIC	-60 dBc (30 KHZ Bandwidth)
INPUT VOLTAGE (NOMINAL)	+27 VDC
DC CURRENT	9 A (@ 30 W Output)
OPERATION TEMPERATURE	- 5 °C TO + 55 °C
MECHANICAL DIMENSIONS (L X W X H)	273 X 247 X 60 mm (Including heatsink)

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REV DATE: -

ar worldwide • modular rf
11807 North Creek Parkway South, Suite 109 • Bothell, Washington 98011 • 425-485-9000 • Fax 425-486-9657 • www.ar-worldwide.com

RF / POWER SUPPLY CONNECTORS

Connector type	Function
SMA Female	RF Input
SMA Female	RF Output
SMA Female	RF Sample Port
17W2 Male Combo	Power Supply & Interface

FUNCTIONS

Description	I/O	Comments
Over Power Alarm	Output	Activated at Pout > 47.8 dBm Alarm = TTL Lo. Mute PA
Device Failure Alarm	Output	Alarm = TTL Lo. Mute PA Alarm condition: Gain of the PA drops below expected value
VSWR Alarm	Output	Threshold VSWR: 3:1 Alarm = TTL Lo. Mute PA
Over Temperature Alarm	Output	Activate at +85°C Auto-Restart at 70°C Alarm = TTL lo.
Enable/Disable Line	Input	TTL High = Enable If TTL = High and any alarm mutes the PA, the Enable line needs to toggle from high to low (disable) and then from low to high (enable) again to clear alarm and re-enable PA.
DC Power Monitor	Output	Low impedance when DC turned on. Open collector when off.
Forward Power Monitor	Output	Analog proportion to RF forward power output.