

PMU2C1S, -TM

RF POWER MONITORING UNIT

The Telewave PMU2C1S RF Power Monitoring Unit measures the forward and reverse power levels of single or multiple transmitters connected to an antenna. The information obtained allows the PMU to present vital antenna and transmitter information and alert the operator of any alarm conditions.

The PMU2C1S offers antenna VSWR and transmitter low power alarms when a dual-directional coupler is used. When the site antenna VSWR condition exceeds the value set by the operator, an alarm is triggered and maintained until normal operation is resumed. The low power alarm compares the lowest measured power level in the system to a minimum acceptable level set by the operator.

If output power drops by 1dB or 3dB below the preset level, the PMU triggers the low power alarm and maintains it until the power level returns to normal, or the alarm is reset. Both alarm outputs can be set to operate as normally open or normally closed. All alarm and PMU parameters can be monitored and controlled locally or remotely by use of an RS-232 or RS-485 communications interface port on a PC.

The PMU2C1S mounts vertically in a 7" x 1.75" space, with mounting hardware for standard EIA 19" rack. A large LED display shows current status and measured power or VSWR levels, and a toggle switch controls the display output.

The PMU2C1S can be installed in any existing or new transmitter site where antenna power monitoring is required, regardless of the type of combiner system used.

When the PMU2C1S is part of a Telewave Trunking AutoTune System, it can extend its capabilities to monitor all the channels within the AutoTune system, and alert the operator of any alarm conditions. The only interface required between the AutoTune system and the PMU is an RS232 or RS485 daisy chain connection (included as required). Option -TM integrates a 56K modem.

FEATURES

- DUAL REDUNDANT INPUT SUPPLY VOLTAGE
- LOCAL VSWR ALARM TEST AND UNIT RESET
- RS232 OR RS485 INTERFACE TO COMPUTER
- USER FRIENDLY PC APPLICATION PROGRAM
- PMU INTERFACE TO TELEWAVE AUTOTUNE SYSTEM
- PMU SERVICEABLE WITHOUT FULL SITE POWER-DOWN
- REMOTE MONITORING CAPABILITY WITH PC VIA PHONE LINE OR WIRELESS LINK
- OPTIONAL INTEGRATED 56K MODEM

NOTE: ONE DIRECTIONAL COUPLER IS REQUIRED FOR POWER MEASUREMENT.

TWSC-8940 - SINGLE DIRECTION
TWDC-8940 - DUAL DIRECTION

FREQUENCY BAND OF PMU AND COUPLER MUST BE SPECIFIED WITH ORDER.



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ELECTRICAL SPECIFICATIONS	
Frequency range (band calibrated)	220-960 MHz
Bandwidth	50 MHz
Power range FWD/REV (watts)	0.5-500/0.05-50
Power accuracy (typ. / max)	0.25 dB / 0.50 dB
VSWR alarm (settable)	1.1:1 to 5.0:1
Low power alarm (settable)	0.5 to 500 watts
Alarm trigger level	-1 dB or -3 dB below preset
Alarm output	Form C contacts (N/O or N/C)
Input supply voltage	+19 to +30 VDC
Current drain (typ.)	350 mA
Communication interface	RS232 / RS485 (factory installed)
RS232/RS485 address	0 to 4 devices
Directional coupler (additional req.):	
Frequency range (band calibrated)	220-960 MHz
Bandwidth	50 MHz
Coupling	-40 dB
Frequency response (band calibrated)	+/- 0.5 dB
Insertion loss	0.1 dB max.
MECHANICAL SPECIFICATIONS	
Directional coupler RF connectors	N-Female or 7-16 DIN
-40 dB sampling ports	TNC female
Temperature range	0° to 50° C
Shipping weight lbs (kg)	3.5 (1.6)
Dimensions (HWD) PMU in. (cm)	7 x 1.75 x 7 (17.8 x 4.5 x 17.8)
Coupler in. (cm)	2 x 2 x 5 (5.1 x 5.1 x 12.7)