



ptf

3203A & 3204A GLOBALTYME™ MULTI FUNCTION GPS RECEIVERS

GPS Tracking: 12 parallel channels
Acquisition Time: <1.5 minutes (warm start)
Accuracy (1PPS): <20ns
Holdover: <0.2 micro seconds/day (Rb opt)
100/10 Base T ethernet
NTP (optional), Telnet, TCP/IP, FTP
Monitor/Control i/f
Alarm indicator and output
1MHz, 5MHz o/p options
GPS Antenna and Cable Included
Available in 1U (3203A) & 2U (3204A)



The **ptf** GlobalTyme™ Multi Function GPS Receiver provides extraordinary stability in a highly flexible approach to utilizing the caesium stability of the GPS satellite system. Available in both 1U (3203A) and 2U (3204A) versions, the GlobalTyme™ can be configured as a high performance frequency standard, a comprehensive time standard or both.

Frequency standard performance is application tailored with a range of local oscillator options (OCXO, Ultra Low Noise, Rubidium & High Performance Rubidium). The GlobalTyme™ is equipped with one 10MHz RF output (1MHz and 5MHz available as options). Additional options for telecommunications signals of E1 or T1 clock are also available. Internal fitted RF distribution

can be added to provide up to 8 (3203A) or 20 (3204A) outputs.

For timing, synchronization and time keeping applications the unit provides IRIG, 1 PPS and NTP (optional). The 1 PPS output is accurate to within <20ns of UTC (USNO) .

Optional 1PPS input offers system redundancy or simply alternative master reference inputs to the internal GPS if desired.

For monitoring and control the unit houses an Ethernet interface (RJ-45) with various protocols suited to different user needs, from a simple Telnet interface to a fully web-driven browser interactive interface.

Specifications subject to change without notice



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3203A/3204A GLOBALTYME™

SPECIFICATIONS

Electrical

GPS Rx 12 parallel channel

Front Panel Disp. Vacuum Fluorescent
Display(opt)

RF Outputs*

10MHz sine wave 1V rms into 50 ohms
5MHz (opt) 1V rms into 50 ohms
1MHz (opt) 1V rms into 50 ohms
100kHz(opt) 1V rms into 50 ohms

* Standard configuration offers 10MHz sine wave, IRIG B(am) and 1PPS outputs

Digital Outputs

1PPS 5V CMOS into 50 ohms
Prog 5V CMOS into 50 ohms
Pulse Rates
(1PPS to 10MPPS)

100/10 Ethernet i/f RJ-45 Connector
Telnet monitoring/configuration/control
HTTP configuration control
DHCP TCP/IP auto configuration
NTP(optional)
SNMP(optional)

Serial Interface

RS232 Control/Monitor(DB9)
RS232(opt) Time Output(DB9)

Timing Outputs

IRIG B(am) 3v p-p into 600 ohm
IRIG B(DCLS) 5V into 50 ohm
IEEE 1344 compliant

Accuracy

10MHz <2E-12 (Locked to GPS)
1PPS <20ns wrt UTC (1 sigma)

NTP <10ms (typical)

Stability (Allan Deviation)

	TCXO	OCXO	ULN	RUB
1s	2E-10	3E-11	3E-11	3E-11
10s	2E-10	2E-11	2E-11	2E-11
100s	1E-9	3E-11	3E-12	3E-12

Aging

	TCXO	OCXO	ULN	RUB
1day		1E-9	5E-10	1.7E-12
1 month				5E-11
1 year				5E-10

Phase Noise(SSB)

	TCXO	OCXO	ULN	RUB
1Hz	-72dBc	-94dBc	-108dBc	-90dBc
10Hz	-93dBc	-125dBc	-125dBc	-130dBc
100Hz	-115dBc	-155dBc	-150dBc	-140dBc
1000Hz	-126dBc	-162dBc	-160dBc	-150dBc
10kHz		-162dBc	-165dBc	-160dBc

Spurious (OCXO option)

Offset from carrier
1kHz to 200kHz <-100dBc
200kHz to 1MHz <-80dBc
1MHz to 10MHz <-80dBc

Front Panel

Indicators
Fault Amber LED
Lock Green LED
Power Green LED

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SPECIFICATIONS(CONT'D.)

Environmental/Physical

Temperature

Operating	
Unit	0 deg C to 50 deg C
Antenna	-40 to +85 deg C

Storage

Unit	-20 to 70 deg C
Antenna	-40 to 100 deg C

Humidity

unit	0-95% RH(non-cond)
Antenna	Mil-STD-810E

Power Requirements

AC input (+/-15%)	90-264 VAC
DC input(opt)	18V to 72V DC

Dimensions

3203A	1Ux19"x12"
3204A	2Ux19"x12"
Relative Humidity	0-95% (non-cond.)

Dynamic Characteristics

Velocity	1800km/hr(515m/s)
Altitude	60,000 ft / 18,000m
Acceleration	4g maximum
Jerk	5 m/s ³

Configuration Options

Option	Description
PPSI	External 1PPS in
MOPS	Multi RF outputs
RF01	1MHz sine x 4
RF05	5MHz sine x 4
RF10	10MHz sine x 4
RF100	100MHz sine x 4
TIME	IRIG B(am)x 4
PULS	Pulse Distr.x 4
OPTO	Optical Fiber Output
OPTI	Optical Fiber Input
OVEN	Hi Perf. OCXO
RUBS	Std perf. Rubidium
RUBH	Hi perf. Rubidium
ULNO	Ultra Low Noise o/p
DISP	Front panel keypad/Display
DCPS	DC power Supply
NTPO	Network Time Protocol
SNMP	Simple Network Mgt Prot.
HTTP	Web Browser
WINA	Window Mount antenna
LKIT	Lightning Protection Kit
RSLD	Mounted rack slides



ptf 3204AB rear view



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