



ptf

3203AB/3204AB GLOBALTYME™



Mobile GPS Receivers

GPS Tracking: 12 parallel channel
Acquisition Time: <1.5 m (warm start)
Accuracy (1PPS): <20ns(static mode)
Accuracy (1PPS): <100ns(mobile mode)
100/10 Base T Ethernet
NTP (optional), Telnet

Monitor/Control i/f
Alarm indicator and output
1MHz, 5MHz o/p options
GPS antenna and cable included
Available in 1U(3203AB) and 2U(3204AB)

The mobile version of the ptf GlobalTyme™ GPS Receivers provides the same functionality as the static version, with the additional feature of being able to operate in mobile mode for both ground and airborne applications. Available in both 1U (3203A) and 2U (3204A) versions, the units can be configured as a high performance frequency standard, a comprehensive time standard, or both.

Performance is application tailored with a range of local oscillator options including TCXO(standard), OCXO, Ultra Low noise oscillator, and high performance rubidium.

In standard configuration, the unit is equipped with 10MHz (options to add 100 kHz, 1 MHz, and 5 MHz), 1PPS and IRIG B(am) outputs.

Additional options for telecommunications signals of E1 (2048 kHz) or T1(1544 kHz) clock are also available. Internal RF distribution can be fitted to provide up to 10(3203AB) or 20(3204AB)10MHz outputs .

For timing, synchronization and time keeping, the unit provides optional NTP, TP and Daytime Protocol, in addition to the standard 1PPS and IRIG B outputs. The 1PPS output is accurate within <20ns (1 sigma) of UTC(USNO).

Velocity (2D and 3D), heading, and position coordinates are available through commands on the console/monitor ports and additional status screens on the front panel display(display option only)

Specifications subject to change without notice



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Specifications

Electrical

GPS Rx 12 parallel channel

Front Panel Display(opt) Vacuum Fluorescent

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, 1 RIG 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)
<100ns wrt UTC (mobile)
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
1 day		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	-150dBc

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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Rev G



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Environmental/Physical

Temperature

Operating	Unit	0 deg C to 50 deg C
	Ant	-40 to +85 deg C
Storage	Unit	-20 to 70 deg C
	Ant	-40 to 100 deg C
Humidity	unit	0-95% RH
		(non-condensing)
	Ant	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)	Acceleration	4g maximum
Altitude	60,000 ft / 18,000m	Jerk	5 m/s ³

Configuration Options

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



ptf 3203AB rear view



ptf 3204AB rear view

CE Tested and approved

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Rev G

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