GPS PRECISION CLOCK

TS 8020

TS 8020

CLOCK DE PRECISÃO DE GPS / TS 8020

O TS8020 fornece soluções de sincronização com sinais de tempo e freqüência muito precisos e estáveis. O alto desempenho e a arquitetura otimizada são bem adaptados para sincronização do transmissor de Digital Broadcast em modos SFN, ou a sincronização sem fio de BTS (CDMA, TD-SCDMA).

Um oscilador (OCXO) acoplados à fonte de entrada oferece uma precisão excepcional e reduz o ruído de fase. O algoritmo permite a filtragem do sinal de entrada, fornecendo capacidade de adaptação à qualidade da referência de entrada ativa (GPS, PPS externo). Se a referência de entrada é interrompida, o oscilador mantém as precisões de tempo (SFN) e freqüência (NMF & SFN).

A instalação, status e alarmes são acessíveis através de uma interface Ethernet, através de protocolo SNMP incorporado, ou através da Interface com o usuário WEB.

*Consultar itens opcionais

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The TS8020 provides synchronization solutions with very accurate and stable time and frequency signals. The high performance and the optimized architecture are well- suited for transmitter synchronization of Digital Broadcast in SFN modes, or wireless synchronization of BTS (CDMA, TD-SCDMA).

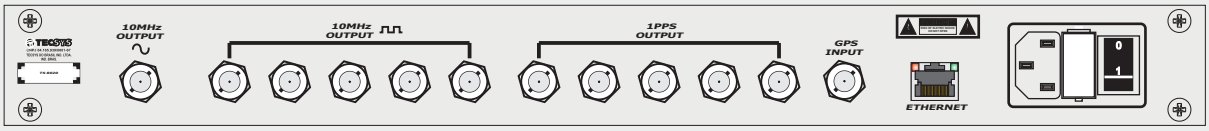
An oscillator (OCXO) slaved to the input source offers outstanding accuracy and phase noise. The algorithm allows input signal filtering and provides real adaptability to the quality of the active input reference (GPS, external pps, etc.). In case of total input reference disruption, the highly stable oscillator allows a very effi cient holdover mode where Time (SFN) and Frequency (MFN & SFN) accuracies are maintained.

The installation, status and alarms are accessible via an Ethernet interface through SNMP or via the web user interface.

*Check optional items

DIGITAL

REAR VIEW



TECHNICAL SPECIFICATIONS
GPS PRECISION CLOCK

OUTPUTS

Five Frequency Outputs (10 MHz)

	Broadband Applications
Accuracy: with GPS (average over 24 hours when GPS locked)	< ± 1 x 10^{-12}
Accuracy: without GPS	< ± 2 Hz
Medium Term Stability (without input reference, constant temperature, after 2 weeks of continuous operation locked on input source)	2 x 10^{-10}/day
Short Term Stability (Allan Variance) @1s @10s & 100s	 1 x 10^{-11} 3 x 10^{-11}
Temperature Stability (peak to peak)	1 x 10^{-9} (from -5° to 70°C)
Phase Noise (typical, static conditions) 10 Hz 100 Hz 1kHz 10kHz 100kHz	 -120 dBc / Hz -135 dBc / Hz -145 dBc / Hz -145 dBc / Hz -145 dBc / Hz
Harmonic Distortion	-40 dBc

1PPS Time Output

Accuracy to UTC (GPS locked)	± 50 ns (1σ)	± 25 ns (1σ)
Holdover Mode After 4 Hours	3 µs	0.8 µs
Holdover Mode After 1 Day (at constant temperature, after 24 hours of GPS lock)	60 µs	12 µs
5x Outputs	TTL / 50 Ω (BNC)	

Ethernet Communication

Status and Remote Control Outputs	Remote Control: IP access, through any web browser with password protection Manageable through SNMP

10MHz OUTPUT

1x sine output	4dBm / 50 Ω (BNC connector)
5x outputs	TTL / 50 Ω (BNC connector)

One GPS Input

GPS (active antenna)	5Vdc supply (BNC connector)

Characteristics

High-performance GPS clock
12 channel reception on L1 (1575 MHz) C/A code
Remote management by SNMP/HTTP, through Ethernet port

Operanting Mode

- **Cold start-up time:** < 20 minutes
- **Hot start-up time:** < 5 minutes
- Permanent self-test of main functions

General Features

Operating Temperature: -5° to 60°C
Storage Temperature: -40° to 85°C
Relative Humidity: 95% RH @ 40°C, non condensing
RoHS Compliant

Dimensions: 19" - 1 RU
Power: 90 to 242 VAC - auto
Consumption: 10W (max.)

Specifications may change without prior notice, to update the product.

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