泰富科技 Taifu Tech.

SyncMaster Device- **TFT 1001**

High Precision Rubidium/OCXO SyncMaster Device

Timing is the first requirement of human information interaction since ancient times. Nowadays, information technology and communication technology are constantly updated with each passing day, and the requirements for time-frequency synchronization of various systems are getting higher and higher. For example, today's 5G communication network requires the time source, time transmission, and end device, time synchronization performance to reach 10 to 30ns. In order to cope with the deployment of future networks, our company has specially developed the TFT1001 series of high-precision synchronous products.

TFT1001 series high-precision synchronization equipment can be widely used in communication, power, military and other systems, with time frequency tracing, local clock tame, time transmission and time frequency output functions. TFT1001 Supports configuration and maintenance-free functions, and provides a network management platform and indicator display. The timing network can be a star, chain and complex models. The equipment output performance meet 30ns accuracy, it can be widely used in telecommunications, electric power and military communication, provide a reliable and high-performance time-frequency synchronization signals.

- Suitable in 19 inch rack (1U);
- Support 7*24 hours uninterrupted service;
- Support Ethernet NMS management;
- Support dual -48V DC redundant power;
- Support PTP, NTP, SyncE output

- Support IEEE 1588v2 default profile, ITU-T G.8275.1 profile.
- Support PTP/NTP bounding, PTP and NTP output can be configured at the same port;
- NTP concurrent output capability 10000 times per second;
- IPv4 and IPv6 supported at NTP/PTP

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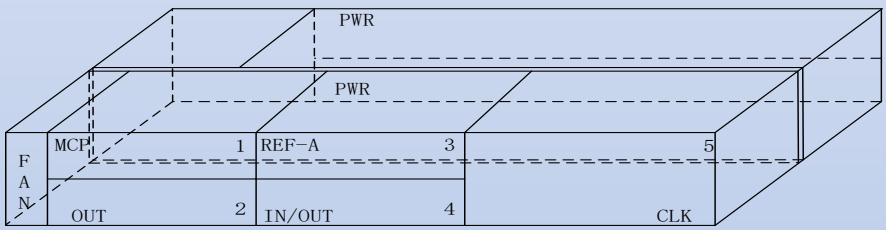
TFT 1001 Application Case

- Synchronization and Time-as-a-Service (TaaS) applications with the high availability
- PTP & Sync-E Timing Distribution at the edge of mobile backhaul and fronthaul Telecom networks for frequency and phase synchronization
- Synchronization delivery within buildings for indoor small cell radio base stations
- Synchronization of legacy network architectures based on NTP and SSU
- Time as a service (TaaS) into data center, financial, health and media networks
- Railway transit network synchronization
- Broadcast system, intelligent hospitals, financial system, civil aviation system, smart city synchronization
- Smart Power Grid synchronization

TFT 1001 Slot Layout



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TFT 1001 Cards / Modules

	PTP Module	In/Output configurable. 4x SFP ports 5W (norm working condition) 232(L) * 100(W) * 20(H) mm
	NTP Module	Output module. 4x SFP ports 5W (norm working condition) 232(L) * 100(W) * 20(H) mm
	1PPS + TOD	Output module. 4x RJ45 RS422 ports 5W (norm working condition) 232(L) * 100(W) * 20(H) mm
	E1 Module	Output module. DB25 port (32x outputs) 5W (norm working condition) 232(L) * 100(W) * 20(H) mm
	B-DC Electrical	Output module. 4x BNC @TTL 5W (norm working condition) 232(L) * 100(W) * 20(H) mm
	B-DC Optical	Output module. 4x ST-Optical 5W (norm working condition) 232(L) * 100(W) * 20(H) mm
	B-AC	Output module. 4x BNC 5W (norm working condition) 232(L) * 100(W) * 20(H) mm

Supported Network Protocol

- NTP (v1, v2, v3, v4)
- IEEE1588v2
- ARP
- IPv4/IPv6
- FTP
- Telnet/SSH
- SNMP

Compatible Protocol

- IEEE 1588v2 (PTP)
- ITU-T G.8264, G.8273.2, G.8275.1
- RFC 1059 (NTPv1), RFC 1119 (NTPv2), RFC 1305 (NTPv3), RFC 5905 (NTPv4)

Phase & Frequency Accuracy

- 10MHz Frequency Performance: better than 5E-13/day when locked to GNSS
- 1PPS Phase Performance: better than ±30ns when locked to GNSS

Management Port

- CLI local management via serial port (USB)
- Telnet configure or monitor device
- HTTP based visible management
- SNMP based centralized management

Environment

- Dimension: 435.8mm x 44.5mm x 305mm (WxHxD)
- Operation temperature (ambient): -5 to +60°C
- Storage temperature: -40 to +70°C
- Humidity: 0 to 95% (non-condensation)
- Dual DC PSU: -48VDC (Tolerant -36 ~ -72VDC).