



microSync Broadcast: Compact and flexible Sync Solution for Broadcast Environments

[1]

Meinberg's microSync for broadcast applications is a powerful dual-port PTP generator, supporting SMPTE ST 2059-2 profile and offering a high level of efficiency and flexibility.

It is available in a compact, space-saving half-rack design and in a 19-inch rack-mount enclosure which additionally offers redundant power supplies and OLED display as an option.

Key Features

- Selectable Reference Time Sources: GPS: Satellite receiver for the Global Positioning System GNS: Combined GPS/GLONASS/Galileo/BeiDou satellite receiver (L1 frequency band), can also be used for mobile applications GNS-UC: GPS and Galileo Satellite Receiver with Up-Converter for Meinberg GPS Antenna/Converter
- High Performance NTP Server (NTP & SNTP v2, v3, v4)
- Meinberg Device Manager for configuration and status monitoring
- Powerful IEEE 1588 PTP Time Server incl. SMPTE ST 2059-2, AES67 Media and IEEE 802.1AS Profiles
- Half-Rack Option for a Space Efficient Design
- Different oscillator options for advanced holdover performance
- Video-Sync Generator and Video Input References (Black Burst, LTC and Word Clock)
- Option: OLED display with rotary knob for initial setup (RX models only)

Available exclusively in the UK and Ireland from APC Technology Group. Speak to a member of our time and frequency synchronisation team for more information and product support.

01522 596 570 | time@apctech.com

Description

This innovative, multipurpose synchronization solution offers a variety of outstanding features, many of which are also found in Meinberg

Characteristics

Supported PTP Profiles	<p>Default:</p> <ul style="list-style-type: none">- IEEE 1588v2 (PTPv2) <p>Power:</p> <ul style="list-style-type: none">- IEC/IEEE 61850-9-3- IEEE C37.238-2011- IEEE C37.238-2017 <p>Telecom:</p> <ul style="list-style-type: none">- ITU-T G.8265.1 Frequency- ITU-T G.8275.1 Phase/Time- ITU-T G.8275.2 Phase/Time- DOCSIS 3.1 <p>Broadcast:</p> <ul style="list-style-type: none">- SMPTE ST 2059-2- AES67 Media Profile <p>AVB/TSN:</p> <ul style="list-style-type: none">- IEEE 802.1AS
Synchronous Ethernet	<p>Master and Slave Capability Compliant to ITU-T G.8261, G.8262 and G.8264 Ethernet Synchronization Messaging Channel (ESMC)</p>
Display	<p>OLED Display Option Functions (system administration):</p> <ul style="list-style-type: none">* IP Address* Netmask* Gateway* DHCP <p>Indication:</p> <ul style="list-style-type: none">* Time and Date* Status of synchronization source:* Firmware version* Model and serial number

Display

OLED Display Option

Functions (system administration):

- * IP Address
- * Netmask
- * Gateway
- * DHCP

Indication:

- * Time and Date
- * Status of synchronization source:
- * Firmware version
- * Model and serial number

Network Protocols

IPv4, IPv6
 NTPv3, NTPv4
 PTPv2
 IEC 62439-3 (PRP)
 DHCP, DHCPv6
 DSCP
 IEEE 802.1q VLAN filtering/tagging
 IEEE 802.1p QOS
 SNMPv1/v2/v3
 Remote Syslog Support (UDP)

Interface

Single serial RS-232 interface

Network Interface

Gigabit Ethernet (GbE) - SFP:

LAN 0, LAN 1
 Management
 10/100/1000Mbit RJ45 or 1000FX
 NTP

LAN 2, LAN 3
 Management
 10/100/1000Mbit RJ45 or 1000FX
 NTP / PTP

Universal Serial Bus (USB) Ports

USB Terminal

USB-to-serial console - Micro-USB Type B

USB Host

USB connector management CPU - USB Type A

BNC Connectors

Output Signals **Black Burst Output**

Output signal: PAL, NTSC Black Burst with VITC support

Signal level: 300 mVpp into 75 Ohm (unbalanced)

- * PAL (SMPTE259M/ITU-R BT.470-6)
- * NTSC (SMPTE170M/ITU-R BT.470-7)
- * VITC (SMPTE12M-1/SMPTE ST309M)

Tri-Level Sync:

- * 720p50 Hz (SMPTE296M3)
- * 1080i25 Hz (SMPTE274M6)
- * 720p59,94 Hz (SMPTE296M1)
- * 1080i29,97 Hz (SMPTE274M7)

DARS Output

Output signal: DARS

Signal level: TTL, 2.5 Vpp into 75 Ohm

Signal type: base frequencies - 44.1 kHz and 48 kHz

Word Clock Output

Output signal: Word Clock

Signal level: TTL, 2,5 Vpp into 75 Ohm

Base frequencies: 44.1 kHz and 48 kHz

Frequency range (44.1 kHz): 1.378125 kHz ... 1.4112 MHz

Frequency range (48 kHz): 1.5 kHz ... 1.536 MHz

Scale factor: 1/32, 1/16, 1/8, 1/4, 1/2, 1, 2, 4, 8, 16, 32 Input Signals

Black Burst Input

Input signal: Black Burst (PAL)

Input with VITC Reader

Input with Prescaler mode (Frequency only)

Signal level: 300 mVpp into 75 Ohm (unbalanced)

Time Code Formats: PAL SMPTE259M / ITU-R BT.470-6 SMPTE12M-1 / SMPTE ST309M

Word Clock Input

Input signal: Word Clock Input with programmable frequency range

Signal level: TTL

Frequency range: 1 kHz - 10 MHz

BNC Connectors

Output Signals **Black Burst Output**

Output signal: PAL, NTSC Black Burst with VITC support

Signal level: 300 mVpp into 75 Ohm (unbalanced)

- * PAL (SMPTE259M/ITU-R BT.470-6)
- * NTSC (SMPTE170M/ITU-R BT.470-7)
- * VITC (SMPTE12M-1/SMPTE ST309M)

Tri-Level Sync:

- * 720p50 Hz (SMPTE296M3)
- * 1080i25 Hz (SMPTE274M6)
- * 720p59,94 Hz (SMPTE296M1)
- * 1080i29,97 Hz (SMPTE274M7)

DARS Output

Output signal: DARS

Signal level: TTL, 2.5 Vpp into 75 Ohm

Signal type: base frequencies - 44.1 kHz and 48 kHz

Word Clock Output

Output signal: Word Clock

Signal level: TTL, 2,5 Vpp into 75 Ohm

Base frequencies: 44.1 kHz and 48 kHz

Frequency range (44.1 kHz): 1.378125 kHz ... 1.4112 MHz

Frequency range (48 kHz): 1.5 kHz ... 1.536 MHz

Scale factor: 1/32, 1/16, 1/8, 1/4, 1/2, 1, 2, 4, 8, 16, 32 Input Signals

Black Burst Input

Input signal: Black Burst (PAL)

Input with VITC Reader

Input with Prescaler mode (Frequency only)

Signal level: 300 mVpp into 75 Ohm (unbalanced)

Time Code Formats: PAL SMPTE259M / ITU-R BT.470-6 SMPTE12M-1 / SMPTE ST309M

Word Clock Input

Input signal: Word Clock Input with programmable frequency range

Signal level: TTL

Frequency range: 1 kHz - 10 MHz

Pulse Per Second Input

Input signal PPS (pulse per second)

Signal level: TTL

Pulse length: \geq 5 microsec, active high

GPIO (General Purpose Input/Output)	GPIO / LTC Input signal: LTC Reader (25 fps) Output signals: LTC Out, DARS Out, Time Sync Out Signal level: TTL, 2,5 Vpp (MARK/SPACE) into 50 Ohm
Oscillator Options	OCXO SQ Holdover performance 1 day: ± 220
Power supply	Maximum voltage range: microSyncRX AC / DC: 90-265 V AC, 47-63 Hz / 90-250 V DC DC: 20-60 V DC microSyncHR DC: 10-36 V DC
Power consumption	microsyncHR Pmax = 30 W microsyncRX Pmax = 100 W (redundant operation)
Atmospheric Pressure	615 to 1600 hPa
Operating Altitude	Up to 4000 m (13,123 ft) above sea level
Form Factor	Housing Type: 19", 1HE 482,6 mm x 248 mm x 43 mm /19 inch x 9.76 inch x 1.69 inch (widthx depth x height) Material: Steel
Protection	IP30
Ambient temperature	0 to 50 °C (32 to 122 °F) (operation)
Storage Temperature	-20 to 70 °C (-4 to 158 °F)
Humidity	5 % to 95 %, 40 °C, non-condensing
Compliances	

- * CB Scheme
- * CE
- * FCC
- * UL
- * CSA
- * WEEE, Waste of Electrical and Electronic Equipment
- * RoHS, Restriction of Hazardous Substances
- * REACH, Registration, Evaluation, Authorization and Restriction of Chemicals

Compliances

- * CB Scheme
- * CE
- * FCC
- * UL
- * CSA
- * WEEE, Waste of Electrical and Electronic Equipment
- * RoHS, Restriction of Hazardous Substances
- * REACH, Registration, Evaluation, Authorization and Restriction of Chemicals

Scope of supply	Included in delivery is an outdoor antenna incl. mounting kit, pre-assembled antenna cable and product documentation on USB storage. The microSyncHR system is supplied with a power adapter (input voltage range 90 - 264 V AC, output voltage 24 V DC).
Warranty	Three-Year Warranty
RoHS-Status of the product	This product is fully RoHS compliant
WEEE status of the product	This product is handled as a B2B category product. In order to secure a WEEE compliant waste disposal it has to be returned to the manufacturer. Any transportation expenses for returning this product (at its end of life) have to be incurred by the end user, whereas Meinberg will bear the costs for the waste disposal itself.

APC Technology Group is the exclusive distributor of Meinberg time synchronisation equipment in the UK and Ireland. We provide the innovation, quality and range of Meinberg systems, all built to order, backed by our extensive expertise in network infrastructure and timing requirements.

Speak to a member of our time and frequency synchronisation team for more information and project support for all time synchronisation requirements.

01522 596 570 | time@apctech.com