

SYN64 64-channel synchronization distributor



Data Sheet

EN01B



CALTRON PTE LTD

SIGLENT TECHNOLOGIES CO.,LTD

SYN64

Key Features

- 1:64 high-speed fanout
- DC-coupled and AC-coupled input modes
- 10V ~ 10V input range
- 10V ~ 10V trigger level range
- Low jitter, low skew
- 1U height for standard rack mounting

Product Overview

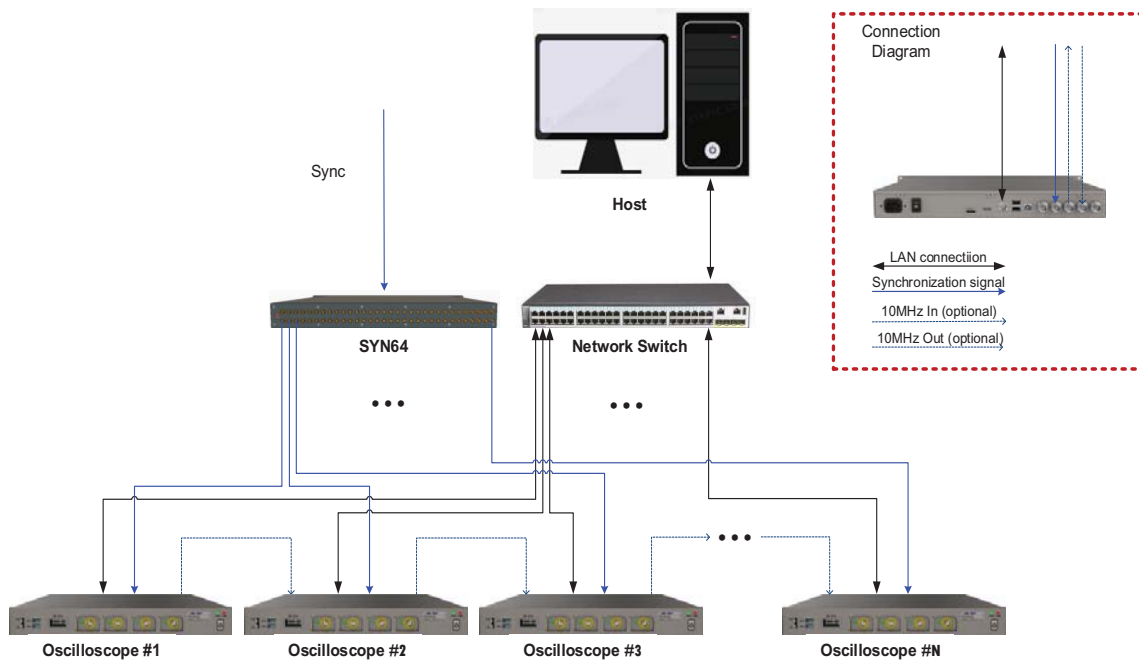
The SYN64 synchronization distributor is a 1:64 high-speed digital signal driver, which fan-outs the input into 64 outputs with low-jitter, low-skew. Its input offers both DC and AC coupling modes and adjustable trigger level.

For a multi-channel acquisition system built with multiple oscilloscopes, a synchronization distributor is an essential device. Use the SYN64 as the trigger source of the oscilloscopes, connecting the outputs of the SYN64 to the EXT trigger or analog channel of the oscilloscopes to build an acquisition system. You can also use the SYN64 to calibrate the skew between channels of the acquisition system. By connecting the outputs of the SYN64 to the analog channel inputs of the oscilloscopes, you can calibrate the delay of each analog channel and cable to ensure the alignment of multiple channels.



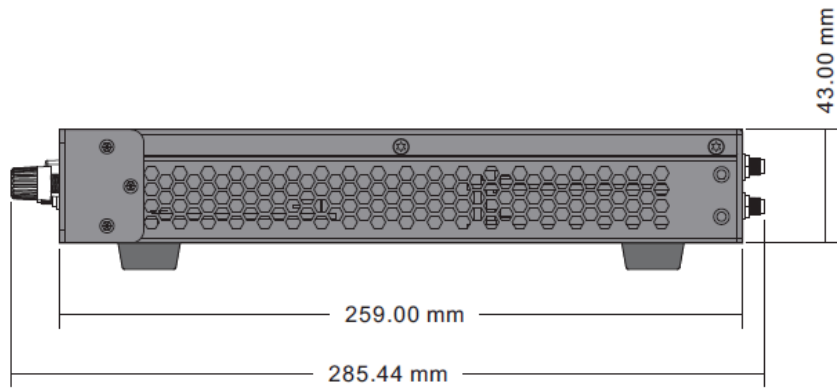
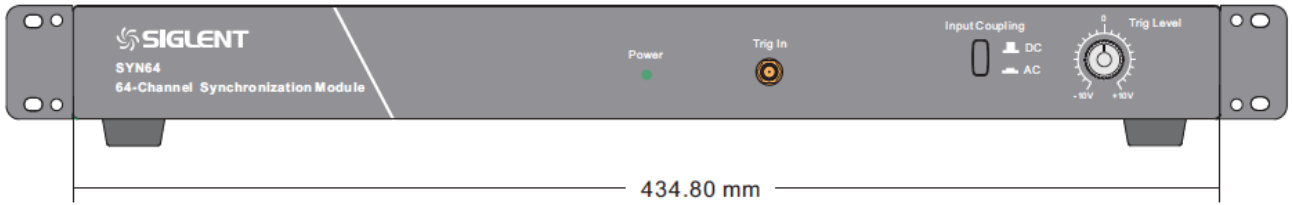
Application

Multi-channel High-speed Acquisition System



- Multiple units are combined to create a high-speed acquisition system with up to 512 channels by being triggered with low-skew synchronization signals from the SYN64
- The host can access each unit over 1000M LAN. A complete SCPI command set as well as LabVIEW and IVI drivers are provided for easy data acquisition. The LAN port is LXI compliant.
- Sample clocks are synchronized between all units in the test system by cascading the 10 MHz In and 10 MHz Out clocks in a daisy chain

Mechanical Dimensions



Specifications

All specifications are not guaranteed unless the following conditions are met:

- The module has been working continuously for at least 30 minutes at the specified temperature (18°C ~ 28°C)

Input	
Channel	1
Voltage range	-10 V ~ +10 V
Swing	1.5 ~ 20 Vpp
Impedance	50 Ω
Power	≤ 1 W
Minimum pulse width	1 ns
Coupling	DC, AC
Trigger level	-10 V ~ +10 V, adjusted by potentiometer
Connector	SMA
Output	
Channel	64
Group	8. Output 1~8 as Group 1, Output 9~16 as Group 2, and so on
Voltage	800 mVpp swing, 400 mV DC offset (into 50 Ω)
Rise time	300 ps typical (20% to 80%)
Jitter	1 ps rms typical
Skew	In group: 30 ps typical, 50 ps maximum, 0 ~ 50 °C Between groups: 140 ps typical, 200 ps maximum, 0 ~ 50 °C
Requirement on load	50 Ω to ground, DC coupled
Connector	SMA
General	
Dimensions	Length × Height × Width = 434.8 mm × 43.0 mm × 285.4 mm
Power consumption	12 W
Temperature	Operating: 0°C ~ 50°C Non-operating: -30°C ~ 70°C
Humidity	Operating: 5% ~ 90%RH, 30°C, degraded to 50%RH at 40°C Non-operating: 5% ~ 95%
Altitude	Operating: ≤ 3,048 m, 25°C Non-operating: ≤ 15,266 m



About SIGLENT

SIGLENT is an international high-tech company, concentrating on R&D, sales, production and services of electronic test & measurement instruments.

SIGLENT first began developing digital oscilloscopes independently in 2002. After more than a decade of continuous development, SIGLENT has extended its product line to include digital oscilloscopes, isolated handheld oscilloscopes, function/arbitrary waveform generators, RF/MW signal generators, spectrum analyzers, vector network analyzers, digital multimeters, DC power supplies, electronic loads and other general purpose test instrumentation. Since its first oscilloscope was launched in 2005, SIGLENT has become the fastest growing manufacturer of digital oscilloscopes. We firmly believe that today SIGLENT is the best value in electronic test & measurement.

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