



OSA 5533C SDU

Synchronization Distribution Unit

OVERVIEW

The steady expansion and growth of telecommunication services has resulted in the implementation of complex networks. These often contain a large number of network elements requiring proper synchronization to ensure a smooth network operation with the required quality of service.

Further growth results in additional output capacity being required at the network nodes to synchronize the supplementary elements and thus makes it necessary to implement expansion synchronization equipment.

To meet this requirement, Oscilloquartz proposes its compact **Synchronization Distribution Unit: OSA 5533C SDU**.

HIGHLIGHTS

- Synchronization Distribution Unit with holdover capability
- Single or dual input
- Up to 64 outputs
- Up to 24 E1 or T1 traffic carrying signals
- Holdover: compliant to ITU-T G.812 SSU (Type III) requirements
- Full support of SSM on E1/T1
- Wide choice of output interfaces: 2.048Mbit/s (E1), 1.544 Mbit/s (T1), 64/8 kbits/s Composite Clock (CC), 2.048/5/10 MHz.
- Output protection: (1:1) and unprotection modes
- Wide choice of connectors and impedances
- Fully locally and remotely manageable
- Fully maintenance-free operation





OVERVIEW

The OSA 5533C SDU provides a very economical and reliable solution to the distribution of synchronization references to network elements, such as switches, cross-connects and multiplexers.

The OSA 5533C SDU provides up to 48 or 64 outputs referenced to the selected input or to the Holdover Unit. 1:1 card protection is available as an option for all output cards.

With the OSA 5533C SDU it is also possible to re-time up to 24 traffic-carrying signals. The OSA 5533C SDU is ideally suited to stand-alone clock distribution requirements in all SDH or SONET nodes where a stable reference is available.

The equipment can be configured with single or dual inputs and it accepts references such as E1, T1 or various frequencies (2.048/1.544/1/5/10MHz.)

The OSA 5533C SDU fully supports Synchronization Status Messaging (SSM) to implement self-healing synchronization networks.

HOLDOVER FUNCTION

A highly functional Holdover Unit (HOU) ensures that the OSA 5533C SDU continues to deliver output references even when all inputs are lost/not valid.

The HOU contains an oven controlled crystal oscillator with a stability better than 5E-10/day, exceeding the requirements of ITU-T G.812 SSU (Type III).

Moreover, the HOU ensures hitless input switch-over, provides jitter and wander attenuation, and maintains output phase within the limits specified in G.812.

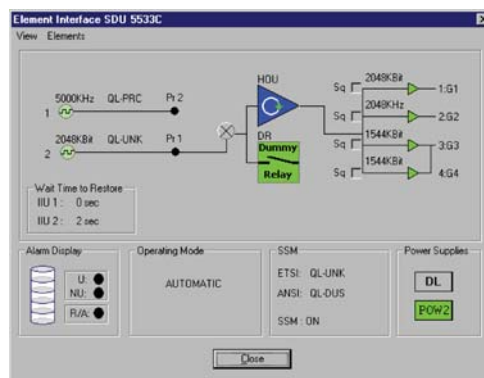
OUTPUT AND RE-TIMING

The OSA 5533C SDU can provide both synchronization distribution and traffic re-timing, avoiding the need for separate equipment (and additional management connections).

It can provide up to 48 output synchronization signals of telecom formats (E1, T1, and/or various frequencies), up to 24 E1/T1 re-timing channels or a combination of outputs and re-timing. 64 outputs are available with CEI 1.0/2.3.

FULL SSM MANAGEMENT

The OSA 5533C SDU can effectively be employed in self-healing synchronization networks thanks to its full implementation of Synchronization Status Message (SSM) management.





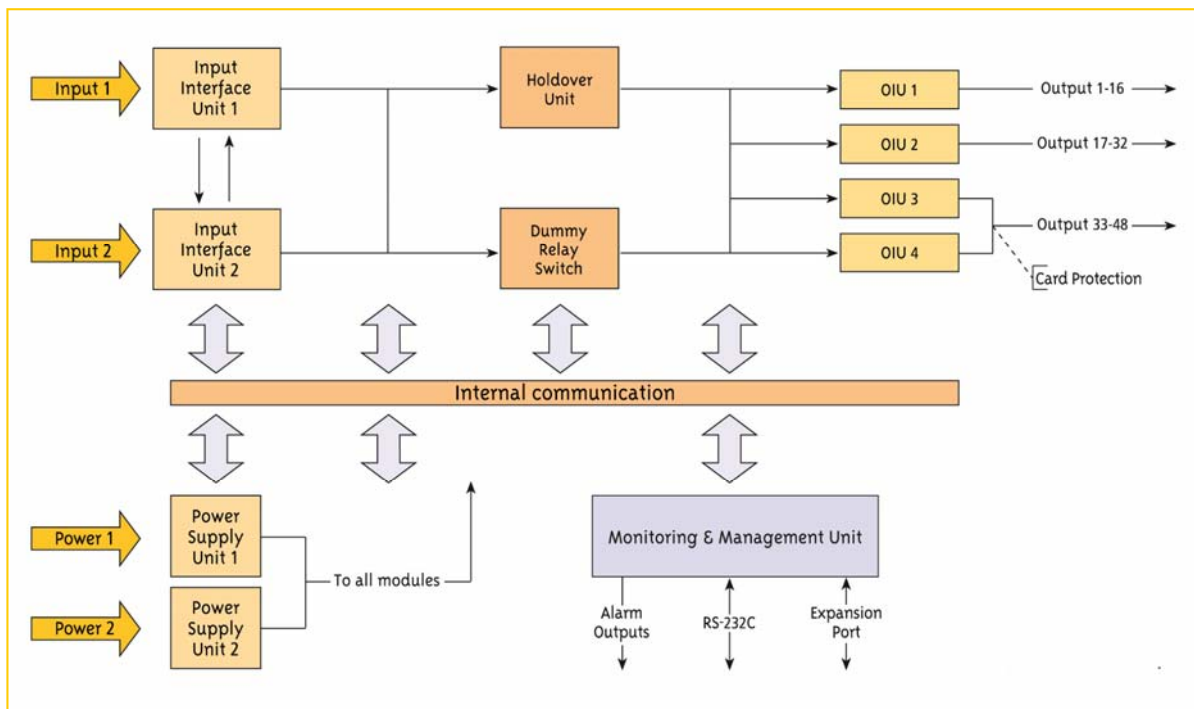
MANAGEMENT

The OSA 5533C SDU is manageable in three different ways:

- Locally, through the RS-232 port using the OSA Local Manager for 5533C, a graphical, intuitive windows-based application
- Remotely, through the RS-232 port and a modem/LAN connection, using the same Local Manager coupled with the OSA Remote Access Manager (RAM) software.
- Remotely, through TCP/IP connection to the network management center, using Oscilloquartz' renowned synchronization management system- SyncView™ Plus



Functional Diagram





OSA 5533C SDU

Synchronization Distribution Unit



TECHNICAL SPECIFICATION

Power:

Up to 2 power supplies in any combination of:

- 39-72 VDC
- 150-265 VAC
- 65-132 VAC

Input Signals:

Up to 2 synchronization inputs chosen among¹:

- 2.048 MHz
- 2.048 Mbit/s (E1)
- 1.544 Mbit/s (T1)
- 64 kHz
- 1 MHz
- 1.544 MHz
- 5 MHz
- 10MHz

Output Signals:

Up to 48 unprotected / 32 protected output selectable in groups of 16 among:

- 2.048 MHz
- 2.048 Mbit/s (E1)
- 1.544 Mbit/s (T1)
- 64/8 kbit/s Composite Clock (CC)
- 5 MHz
- 10MHz

(64 outputs with CEI 1.0/2.3 75 ohm connectors)

Re-timing:

- Re-timing of up to 24 E1/T1 traffic-carrying signals

Holdover Unit (HOU):

- Based on double oven oscillator: OCXO 8711
- Long term stability:
 - < $\pm 5E-10$ /day
 - < $\pm 1E-7$ /year

Management:

- Local Manager through RS-232 connection
- Remotely manageable through RS-232C + modem (POTS/LAN) via RAM for Local Manager (see separate Remote Access Manager datasheet)
- Remotely manageable through 10BaseT Ethernet interface via the OSA SyncView™ *Plus* management system

Physical dimensions (HxWxD):

- ETSI: 6U (266x535x240)mm
- 19": 3U (133x483x270)mm

¹E1 input/output cards cannot be mixed with T1 or CC input/output cards in the same equipment.

Oscilloquartz SA reserves the right to change all specifications contained herein at any time without prior notice.