



Meinberg Funkuhren

Lange Wand 9

31812 Bad Pyrmont, Germany Phone: +49 (5281) 9309-0 Fax: +49 (5281) 9309-30 https://www.meinbergglobal.com

info@meinberg.de

IMS-VSG: Synchronization Signal Generator for Use in Studio Applications

This product is only compatible with Meinberg's line of modular **IMS LANTIME** systems. Visit the [1] **IMS Information Page** to learn more.

The IMS-VSG modules for Meinberg

Key Features

- VSG181: Four BNC outputs with configurable video and audio signals: Black & Burst, Tri-Level Sync LTC (Linear Time Code) DARS (Digital Audio Reference Signal) Word Clock VSG181H: Two BNC outputs and a DB15 multi-output with configurable video and audio signals: Black & Burst and tri-level sync DARS (Digital Audio Reference Signal), unbalanced 15-Pin Multi-Output: LTC (Linear Time Code), balanced and unbalanced DARS (Digital Audio Reference Signal), balanced Word Clock
- Four LEDs for signaling status of module and outputs

Description

The IMS-VSG181 and IMS-VSG181H provide video and audio reference signals for studio equipment, with support for bi-level sync (black & burst), tri-level sync, linear time code (LTC), Digital Audio Reference Signal (DARS) and word clock signal output. On a IMS-VSG181, these signals are output via four BNC connectors, while on an IMS-VSG181H, this is achieved via two BNC connectors and a DB15 multi-output. All signal outputs can be configured in detail to meet your specific names via the LANTIME Web Interface of your IMS system.

Both the IMS-VSG181 and IMS-VSG181H are synchronized by means of the upstream reference of your IMS system. The VSG modules are also available with special on-board crystal oscillators to maintain the integrity of the reference signals, even if the upstream reference signal is temporarily lost or disrupted for any reason.



Characteristics

Status Indicators	"St" LED: Status of VSG181/VSG181H in operating system
-------------------	--

"In" LED: Synchronization status
"A" LED: Status of Black Out output
"B" LED: Status of LTC output

BNC Connectors

Black Out (VSG181 and VSG181H)

Signal Level: 300 mVpp, 75 Ohm termination Output Signals:

- * Black & Burst: PAL (ITU-R BT.1700), NTSC (ITU-R BT.1700, SMPTE ST 170M)
- * Tri-Level Sync: 720p @ 50 Hz (SMPTE ST 296), 1080i @ 50 Hz (SMPTE ST 274M), 720p @ 59.94 Hz (SMPTE ST 296), 1080i @ 59.94 Hz (SMPTE ST 274M)
- * VITC (SMPTE ST 12M-1/SMPTE ST 309M) with PAL/NTSC signal output, optional date information integration in accordance with ITU-R.BR.1353, SMPTE ST309 or SMPTE ST309 MJD

DARS Out (VSG181 and VSG181H)

Output Signal: DARS (Digital Audio Reference Signal) Signal Level: TTL, 2.5 Vpp, 75 Ohm termination

Signal Type: Sample Frequencies 44.1 kHz and 48 kHz

LTC Out (VSG181 only)

Output Signal: LTC - 24 fps (23.976 or exactly 24 fps), 25 fps, 30 fps (with optional drop

frame support for 29.97 fps content)

Signal Level: TTL, 2.5 Vpp (MARK/SPACE), 75 Ohm termination

Studio Clock Out (Word Clock) (VSG181 only)

Output Signal: Word Clock

Signal Level: TTL, 2.5 Vpp, 75 Ohm termination

Frequency Range: 24 Hz - 12.288 MHz Sample Frequencies: 44.1 kHz and 48 kHz

Scale Factors: 0.125, 0.25, 0.5, 1, 2, 4, 8, 16, 32, 64, 128, 256

GPIO (General Purpose Input/Output)

15-pin D-Sub connector for outputting a variety of balanced and unbalanced signal

types (VSG181H only):

LTC (Linear Time Code), Balanced / Unbalanced Signal Level: TTL, 2.5 Vp (MARK/SPACE), 600

Current Draw

5 V ± 5%, 250 mA

Supported Temperature

0 ... 55°C



Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

There is no online manual available for this product.: [2] Contact us

Links:

[1] https://www.meinbergglobal.com/english/products/modular-sync-system.htm

[2] mailto:info@meinberg.de