



## Meinberg Radio Clocks

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## 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

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<b>Status Indicators</b>	"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
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<b>BNC Connectors</b>	<p><b>Black Out</b> (VSG181 and VSG181H) Signal Level: 300 mVpp, 75 Ohm termination    Output Signals:</p> <ul style="list-style-type: none"><li>* Black &amp; Burst: PAL (ITU-R BT.1700), NTSC (ITU-R BT.1700, SMPTE ST 170M)</li><li>* 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)</li><li>* 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</li></ul> <p><b>DARS Out</b> (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</p> <p><b>LTC Out</b> (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</p> <p><b>Studio Clock Out (Word Clock)</b> (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</p>
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<b>GPIO (General Purpose Input/Output)</b>	15-pin D-Sub connector for outputting a variety of balanced and unbalanced signal types (VSG181H only):  <b>LTC</b> (Linear Time Code), Balanced / Unbalanced Signal Level: TTL, 2.5 Vp (MARK/SPACE), 600
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<b>Current Draw</b>	5 V ± 5%, 250 mA
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<b>Supported Temperature</b>	0 ... 55°C
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<b>Supported Humidity</b>	Max. 85 % (non-condensing) at 40 °C
<b>Warranty</b>	Three-year warranty
<b>RoHS Status of Product</b>	This product is fully RoHS-compliant.
<b>WEEE Status of Product</b>	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.

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#### 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>