



Meinberg Radio Clocks

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IMS-ESI: 2.048MHz, 2.048MBit/s, 1PPS and Variable Frequency Input Card

This product is only compatible with Meinberg's line of modular **IMS LANTIME** systems.

Visit the [1][IMS Information Page](#) to learn more. **ESI - Extended Reference Input**

The ESI (External Synchronization Input) card is capable of adding additional synchronization sources to an IMS system. It accepts E1 and T1 sources, both as a Bitstream (2.048 MBit/s / 1.544 Mbit/s, supporting SSM/BOC) or Frequency (2.048 MHz / 1.544 MHz).

It also handles a configurable frequency (1 kHz - 20 MHz) and a 1PPS pulse synchronization source, if required. An ESI card is, as the MRI card, dedicated to one specific clock module (depending on the slot it is installed in) and can be installed in both ESI as well as MRI slots.

Key Features

- Extended reference input signals: - 1PPS, BNC female - var. frequencies (1 kHz - 20 MHz) unframed, BNC female - var. frequencies (1 kHz - 20 MHz) unframed, RJ45 - BITS E1/T1 framed, RJ45

Characteristics

Supported Reference Signals	PPS and variable frequencies unframed, 1 kHz - 20 MHz 2,048 Mbit/s / 1,544 Mbit/s - E1/T1 framed Input 1 - 1PPS (BNC female connector) TTL, pulse duration $\geq 5\mu\text{s}$, active high Input 2 - 1 kHz - 20 MHz (BNC female connector) sine (400 mVpp - 5 Vpp) or TTL Input 3 - 1 kHz - 20 MHz (RJ-45) 400 mVpp - 5 Vpp into 120 Ohm, TTL Input 4 - E1 or T1 framed G.703 (RJ-45) max. attenuation -12 dB (referred to the signal level) into 120 Ohm
Status Indicators	Four LED indicators provide information on the status of the module: Initialization, operating state, and status of the reference input signals.
Module Connectors	BNC female, RJ-45 jack
Current Draw	5 V, +-5%, 250 mA
Supported Temperature	Operational: 0 - 50 °C (32 - 122 °F) Storage: -20 - 70 °C (-4 - 158 °F)
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

The English manual is available as a PDF file: [2][Download \(PDF\)](#)

Links:

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

[2] <https://www.meinbergglobal.com/download/docs/manuals/english/ims-esi.pdf>