

PortaMonitor 10641X-VID

GENERAL DESCRIPTION

Model 10641X-VID of the RTW PortaMonitor X series contains in a half-19" plug-in module for standard 19" rack-mount cabinets for wave form monitors an analog and digital 4-channel display unit with Peak Program Meter, Loudness display and Correlator especially for analog, digital and mixed stereo and 4-channel applications.

- 4-channel multi-standard peakmeter analog and digital
- Phase meter (correlator)
- Audio Vectorscope
- Loudness display
- Real Time Analyzer
- 3.1 Surround Monitor
- AES/EBU status monitor

The RTW PortaMonitor features four balanced analog inputs as well as two AES/EBU digital inputs. Comprehensive menus allow a user defined configuration of the instrument to meet with the requirements of the application. This settings may be saved to or recalled from memory as User Presets.



(Example of application, rack-mount cabinet not included in delivery)

4-channel Peakmeter analog and digital • Mixed Mode • Correlator • Audio Vectorscope • RTA • Loudness AES/EBU Status • 3.1 Surround Monitor

TECHNICAL SPECIFICATIONS

General

Supply voltage:	+24 V DC (21 V to 30 V DC)
Current drain nominal:	260 mA (power-up current is much higher)
Operating temperature range:	0° to 45° celsius
Weight:	approx. 1200 g (106n1X-VID)
Connectors:	2 x 25-pin Sub-D-F 1 x 15-pin Sub-D-F (Remote) 1 x 4-pin low voltage connector Binder 710 (DC)
Dimensions:	213.8 x 132.6 x 61.5 mm (W x H x D, half-19"/3U without mounting adapters)

Functions

4-channel, analog and digital, mixed mode, multi-standard Peakmeter, audio vectorscope, AES/EBU status monitor, numeric level display, digital Over and Mute detection, RTA, Surround Monitor

Analog Inputs

Inputs:	2 channels (1 x Stereo) or 4 channels (2 x Stereo), electronically balanced
Max. input level:	+24 dBu
Adjustable range for reading reference:	+1 dBu to +16 dBu
CMRR:	> 60 dB
Input impedance:	> 10 kΩ (30 Hz bis 20 kHz)

Digital Inputs

Inputs:	2 (Stereo), AES/EBU, transformer balanced, 110 Ω or High-Z
Sample rate:	32 kHz to 96 kHz

Digital Outputs

Outputs:	2 (Stereo), AES/EBU, input signal looped through, unbuffered
----------	--

Display

Display:	1 color TFT, 5.7", 115 x 86 mm
Resolution:	320 x 240 pixel
Colors:	8
Optimal angle of view:	6 Uhr
Viewing direction:	horizontal +/-45° vertical +10°/-34°
Contrast:	> 85 with optimal angle of view

Peakmeter, General

Level display:	up to 4 channels, vertical display orientation, peak hold indicator switchable, additional spot correlator
Bargraph length:	78 mm
Display modes:	2-channel Stereo, analog or digital
Display modes:	2 x 2-channel Stereo, analog, digital or mixed mode, 3.1 Surround
Operation field:	below reference value: 0 to 15 dB in steps of 1 dB
Peak value memory:	additional peak hold indicators
Numeric level display:	selectable, displayed on the left side of the screen
Correlator spot indicator:	switchable
Loudness display:	additional spot indicator displayed on the bargraphs of the level display, RTW mode or A-, C-, CCIR-2k-weighted, RMS

Peakmeter, Analog

Scales/Standards:	DIN+5 (-50 to +5 dB), DIN+10 (-50 to +10 dB), Nordic (-42 to +12 dB), British IIa („1“ to „7“), IIb (-12 to +12 dB), VU (-21 to +3 dB), Zoom ±1 dB, Zoom ±10 dB, smpte20rel (-40 to +20 dB), smpte40abs (-35 to +24 dB)
-------------------	---

Reference level:

- +6 dBu for:
DIN, Zoom 20 (0 dB display),
Nordic (+6 dB display),
VU (lead selectable from 0 to 10 dB)
- +8 dBu for:
British IIa ("6" display),
British IIb ("8" display)

PortaMonitor 10641X-VID

Integration time:	according to selected standard or manually selectable (1 ms, 0.1 ms)
Fall back time:	according to selected standard (e. g. DIN: 1.5 s/20 dB)
Gain:	according to selected standard: +20 dB (DIN, Zoom) +40 dB (Nordic, British Ila, British IIb)
Memory:	peak level (Peak Memory), peak hold
Peakmeter, Digital	
Word width:	16 to 24 Bit
Scales digital:	0 dB FS to -60 dB FS, 0 dB FS to -20 dB FS,
Scales quasi analog:	+9 dB to 0 dB to -60 dB (BR/ARD), DIN+5, DIN+10, Nordic, British Ila, IIb, Zoom 2, Zoom 20
Special scales:	+18 dB to 0 dB (0 dB FS $\hat{=}$ +18 dB), +18 dB to -18 dB (0 dB FS $\hat{=}$ +18 dB), +20 dB to -40 dB (0 dB FS $\hat{=}$ +20 dB), -5 dB to -20 dB, adjustable in steps of 1 dB
Headroom:	according to selected standard or Sample, 0.1 ms, 1 ms, 10 ms
Integration time (Attack):	according to selected standard
Fall back time:	(e. g. DIN: 1.5 s/20 dB)
Gain:	according to selected standard: +20 dB (Zoom, quasi scale DIN) or +40 dB (digital scales, quasi scales British, Nordic)
High pass filter:	Off, 5 Hz, 10 Hz, 20 Hz
Peak hold display:	Integration time same as level display or sample
Digital Over indicator:	red spot indicators above each bargraph
Threshold:	Full Scale, Full Scale-1LSB, Full Scale-2LSB, -0.1 dB FS, -0.5 dB FS, -1 dB FS, -2 dB FS, -3 dB FS
Attack time:	1 to 15 samples
Word width:	16 to 24 bit
Mute indicator:	red spot indicators below each bargraph
Threshold:	all bits digital „0“
Attack time:	50, 100, 200 or 300 ms or 5 to 80 samples (in steps of 5 samples)

Phase correlation display

Display mode:	bargraph (horizontal)
Scale range:	-1 r bis +1 r
Standardcolor setting:	red -1 r to -0.1 r yellow 0 r green 0.1 r to +1 r
Colors:	selectable
Attack time:	1.0 s, 2.5 s
Memory:	negative peak correlation integrated in peak memory
Memory accuracy:	better 0.1 r

Audio Vectorscope (VSC)

Operation modes:	2/0 (stereo), 3/1
Display modes:	X/Y or M/S
Viewing area:	70 x 70 mm
AGC (Automatic Gain Control):	Auto or manual
Time of persistence:	Fast, medium, slow

Real Time Analyzer

Bands:	31, 1/3-octave
Frequency range:	20 Hz to 20 kHz (IEC-225 ANSI class 2)
Measuring/display range:	selectable: 15 dB, 30 dB, 45 dB
Integration time:	fast/medium/slow, Average or Peak
Peak hold display:	selectable, 2.5 s, 4.0 s or manual
Memory:	8 plus peak hold
Peakmeter:	selectable, 2-channel

Surround Monitor

VSC surround modes:	3/1, 3/0 or 2/1, LF channel display in peakmeter only
AGC:	Fast, slow
VSC refresh rate:	Fast, slow
Indicator display:	Lt/Rt signal, internal calculated or external processed

AES/EBU Status Monitor

Status:	digital channels 1-2, 3-4
Status information:	locked, decoded AES/EBU status
Display:	hexadecimal, binary, active bits, audio bits

Remote Control Interface

Parallel interface:	external function control: Loud, PHold, Memo, Gain, Reset, Shift, Menu, Status, Opt 1, Opt 2, RTA, Gonio, additionally: switching to Digital, switching to Analog
---------------------	---

Controls and additional display elements

Keys:	LOUD, PHOLD, MEMO, GAIN, RESET, SHIFT, MENU, STATUS, OPT 1, OPT 2, RTA, GONIO
-------	---

Items delivered

PortaMonitor 10641X-VID:	<ul style="list-style-type: none">4-channel PortaMonitor with RTA and Surround Monitor as half-19" plug-in module for standard 19" rack-mount cabinets for wave form monitorstwo mounting adapters for cabinets with 407mm depthcounter plug for power supplyOperating manual
--------------------------	--

Order number: 10641X-VID

Data Sheet

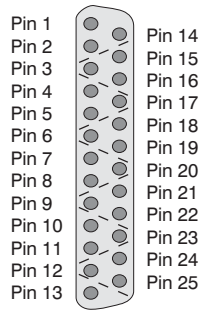
PortaMonitor 10641X-VID

CONNECTION

Input and Output connectors (25-pin Sub-D-F)

Pin: Funktion:

4	Digital in-/output AES/EBU 2 (+, hot)
17	Digital in-/output AES/EBU 2 (-, cold)
5	shield/chassis
18	Digital in-/output AES/EBU 1 (+, hot)
6	Digital in-/output AES/EBU 1 (-, cold)
19	shield/chassis
7	Audio in-/output analog 4 (+, hot)
20	Audio in-/output analog 4 (-, cold)
8	shield/chassis
21	Audio in-/output analog 3 (+, hot)
9	Audio in-/output analog 3 (-, cold)
22	shield/chassis
10	Audio in-/output analog 2 (+, hot)
23	Audio in-/output analog 2 (-, cold)
11	shield/chassis
24	Audio in-/output analog 1 (+, hot)
12	Audio in-/output analog 1 (-, cold)
25	shield/chassis

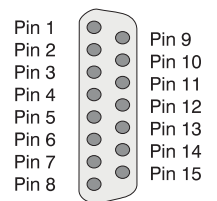


(External view of the connector)

Remote connector (15-pin Sub-D-F)

Pin: Funktion:

1	common potential for ext. switches - GND
9	external function selection: „MEMO“
2	external function selection: „GAIN“
10	external function selection: „MENU“
3	external function selection: „RESET“
11	external function selection: „STATUS“
4	external function selection: digital
12	external function selection: „OPT1“
5	external function selection: analog
13	external function selection: „OPT2“
6	external function selection: „LOUD“
14	external function selection: „RTA“
7	external function selection: „PHOLD“
15	external function selection: „GONIO“
8	external function selection: „SHIFT“



(External view of the connector)

Note: The incoming AES/EBU signals are passive looped through from input connector to the output connector.

Power supply connector (4-pin low voltage type Binder 710)

Pin: Funktion:

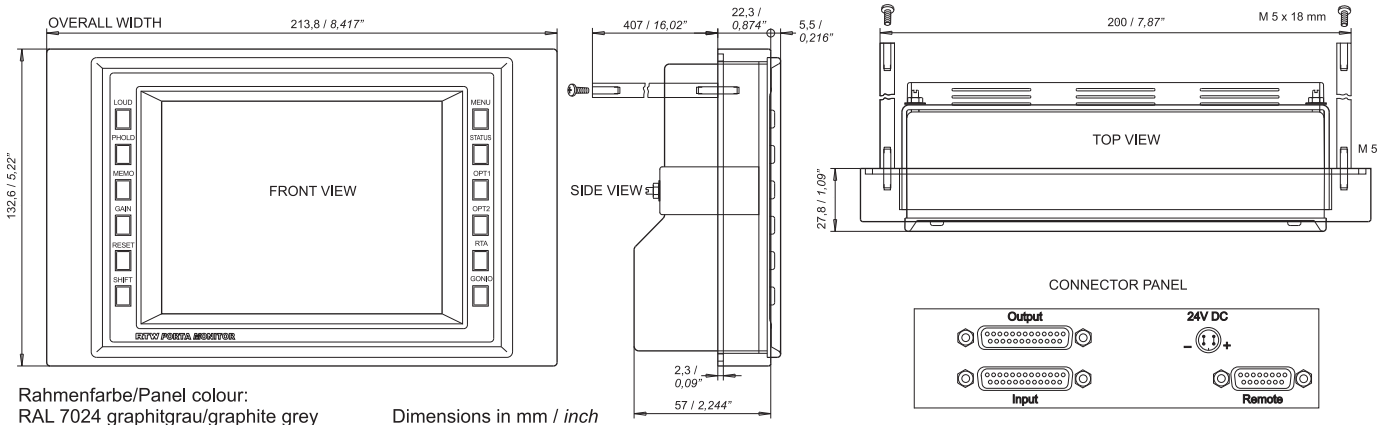
1-2	+24 V	3	2
3-4	0 V	4	1



COLORS

Case: Graphite grey RAL 7024,
Scale: silver with black labelling

DIMENSIONS

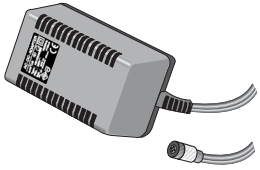


Rahmenfarbe/Panel colour:
RAL 7024 graphitgrau/graphite grey

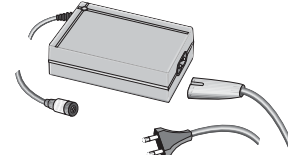
Dimensions in mm / inch

PortaMonitor 10641X-VID

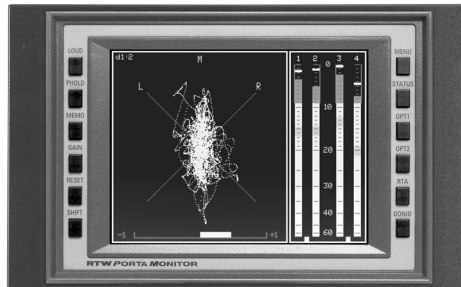
ACCESSORY COMBINATION



- Wide voltage power supply **1171-R**
90 - 240 V AC/24 DC, 630 mA
- Euro plug
 - Locking 4-pin low voltage connector



- Wide voltage power supply **1175-R**
100 - 240 V AC/24 DC, 2.7 A
- corresponding power cable
 - Locking 4-pin low voltage connector



PortaMonitor 10641X-VID
Half-19"/3U plug-in module



- 8-pair snake cable **1186**, 4 m
- Distributes 25-pin Sub-D connector to 8 XLR-F cable connectors
 - For connecting to "Input" connector



- 8-pair snake cable **1163**, 4 m
- Distributes 25-pin Sub-D connector to 8 XLR-M cable connectors
 - For connecting to "Output" connector

Subject to changes without prior notice 02/2010