

RTW and TC Electronic have combined their considerable talents to bring you the TouchMonitor range, available under both brands. RUSS LONG shares the experience...

WHEN IT COMES TO MIXING for broadcast, metering is one of the most important elements of the process. The TouchMonitor TM9 and TM7 (identical systems featuring nine- and seven-inch touch screens, respectively) make this task easier and more accurate than ever. The TouchMonitor includes an easy-to-operate GUI and raises the bar for professional audio metering by improving the precision, performance, efficiency, and flexibility of audio metering.

Features

The standard TM9 TouchMonitor includes a nine-inch 16:9 TFT touch screen (1024 x 600 pixel) mounted into a rugged tabletop frame with a movable table stand, making it easy to place on a meter bridge, producer's desk, or even directly on the console. Alternatively, the unit can be purchased as an OEM version (without the casing) so it can be mounted directly into a rack panel or console.

There are various I/O options, which include combinations of analogue, AES, AES3, and SDI and the unit can simultaneously input and display up to 32 audio channels. The TM7 TouchMonitor is also available as a 19-inch 3U rack mountable version and as a video rack-mountable version.

Our review unit included eight channels of analogue input and eight channels of digital (AES3) input. The TouchMonitor's connectors include Ethernet, VGA, USB 2.0 (x 2), GPIO, and 24 V DC. The machine incorporates a modular software approach for flexible configuration and easy upgrades, and the options to purchase only the tools that your configuration requires. When additional audio tools are needed, new instruments and functions can be added to the device as software modules by purchasing and activating a corresponding license.

The basic TouchMonitor system includes two-channel Stereo-PPM software including Peak, True Peak, and Phase Metering. It supports both analogue scales (DIN, Nordic, British Ila, British Iib) and digital scales (0 to -60dB, +3 to -60dB TruePeak, DIN, Nordic, British Ila and Iib) and includes peak hold, peak memory, and over indicators. Licenses can be purchased for multi-channel processing, loudness (ATSC A/85, EBU R128, ITU-BS-177) and SPL, RTA (Real Time Analyser), SSA (Surround Sound Analyser), Radar Display, and Premium PPM plus Vectorscope. The TC-branded TouchMonitor comes with the Loudness and SPL option. The unit can display two selected instruments at the same time.

When operating in multi-channel mode, the signal routing is expanded from stereo to mono, 3:1 surround, 5:1 surround, 5:1 surround, and/or multi-channel (two to eight channels in one block, up to four blocks with 3G SDI option).

The RTA provides either 31 or 61 bands of frequency response in channel pairs or groups. The Surround Sound Analyser provides a dynamic display that allows the user to visualise the interaction of all surround or stereo sound parameters, and the Radar Display provides a high-resolution circular Loudness display via the TC Electronic protocol.

The TouchMonitor's GUI is controlled entirely by touching your finger on the touchscreen. There is no need for an external keyboard or mouse (although one can be used if preferred). The GUI allows instruments to be selected, scaled, positioned, and combined for optimal use of screen space. Identical instruments can be created, assigned to different inputs and simultaneously displayed. The on-screen help feature makes it easy to make set-up changes.

THE REVIEWER
RUSS LONG, a Nashville-based producer/engineer, owns The Capport recording studio and is a regular contributor to Pro Audio Review. www.russlong.ws



TC OR RTW...?

The TouchMonitor TM7 and TM9 hardware platforms are developed by RTW even though both TC Electronic and RTW sell their own branded versions of the units. TC currently includes the Loudness & SPL instrument in the product, and both offer the TC Radar Meter as well as all the other instruments as options.

Each company uses their own sales channels and therefore can concentrate on their own particular market strengths when it comes to the customer, but they are committed to supporting each other in the product and its development.

RTW is a leading manufacturer of professional instruments and technologies used in visualising audio signals. The RTW Peak Program Meters and RTW Surround Sound Analyser – the company's flagship products – can be found in radio and TV studios around the world. RTW's product line includes multi-channel integrated surround sound visualisation systems with TFT displays based on the pioneering Surround Sound Analyser.

TC Electronic is known for everything from guitar products to its high-end System 600 digital processor, broadcast processors, and plug-ins. The company has been heavily involved in the ITU research that would ultimately become BS.1770 and more recently EBU R128. TC's contribution has been research, verification, true-peak techniques, and new tools and descriptors. It has also developed the TC Radar Meter, which is incorporated into the TouchMonitor software.

In Use

The TouchMonitor was a breeze to get up and running. Input is provided via two D-Sub connectors. The first provides eight channels of analogue input with the second providing eight channels of AES-EBU digital input. Other easy-to-install configurations are also available.

Initially I had the TM9 set up to monitor the output of my Pro Tools stereo buss via the digital output of my Lynx Aurora, but I experimented with monitoring via my two-track output as well as various points in my stereo buss signal path using both the analogue and digital output of the Aurora. The unit worked perfectly in each instance.

In addition to using the touch screen for system set-up and scrolling through presets, I attached an external USB trackball and 14-inch VGA monitor. The trackball worked perfectly for making system adjustments (I actually found it easier than using the onboard touch screen) and while the VGA monitor lost some resolution when increasing the screen's size from nine to 15-inches, it was still completely usable.

Configuring the software was a breeze and typical configurations can be stored making it easy to switch between surround and stereo monitoring, digital and analogue inputs, monitoring, etc. The tools I incorporate while mixing in stereo in the box are different than those I use when mixing on a console, and both of these are entirely different than what I need to use when mixing in surround. It's great being able to instantly recall the exact tool set that I need for a specific application.

Since the pre-DAW era, metering has played an important role in my mixing. I'm accustomed to mixing with a meter but was immediately

impressed with the accuracy of the RTW over anything else I've used. The flexibility in setting up the screen to perfectly complement my workflow is wonderful, especially the ability to make the tools I refer to more often larger and those that aren't as important smaller. Using a USB Flash drive, unlimited presets can be saved as well, making it possible to quickly change set-ups to reference tools that are only needed on occasion or to have separate presets for stereo mixing-digital summing, stereo mixing-analogue summing, 5:1 surround mixing, simultaneous 5:1 surround mixing/stereo down-mix, etc. I found it helpful to visually compare the difference of my mix pre- and post-stereo bus processing.

Unfortunately, I wasn't able to mix anything in surround during the review period but I did spend some time referencing the RTW while playing back some of my surround mixes from older projects – I can't imagine doing another surround mix without it.

The TC/RTW TouchMonitor is an amazing tool that allows the mixer to visually confirm precise

details about their mix, confirming that it meets whatever delivery specs are required. ■

INFORMATION

- TM7: GB42,735 (ex. VAT)
- TM9: GB43,010 (ex. VAT)
- TC Electronic: A/S, Sindalvej 34, DK-8240 Risskov, Denmark
- www.tcelectronic.com
- RTW GmbH & Co. KG, Elbeallee 19, 50765 Koeln, Germany
- +49 221 20 9130
- www.rtw.de
- RTW UK Distributor: Aspen Media Ltd.
- +44 (0) 1296 681913
- www.aspen-media.com

INSTRUMENTATION

Every TouchMonitor comes with a basic software package that includes a Stereo-PPM with analogue scales (DIN, Nordic, British Ila, British Iib) and digital scales (0 to -60dB, +3 to -60dB TruePeak, DIN, Nordic, British Ila and Iib), peak hold, peak memory, over indicators and phase meter. TC TouchMonitors TM7 and TM9 also come with the Loudness & SPL license as standard.

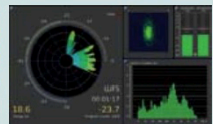
The rest is up to you – you can choose to include instrumentation options at purchase of the unit or at a later date to suit you.



TC Electronic Radar Display

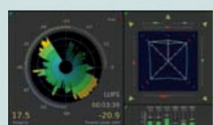
This is a TC innovation and is designed to make your loudness monitoring a breeze. It features a high-resolution circular loudness display for both momentary values and history, together with numerical displays of measuring time and loudness range (LRA). Indeed, TC says it's "The only way to monitor momentary loudness, true-peak, loudness history, and descriptor numbers showing e.g., LRA and Program Loudness in a single view." It's compatible with most new broadcasting standards (US, EU, Japan, and more) and with two loaded onto the TouchMonitor display you can run a dual 24 hours history.

Premium PPM and Vectorscope
This module expands the Basic Stereo PPM (standard software) with additional scales (Zoom, SMPTE, NHK, ARD+9, et al.) and functions (Peak Hold, Peak Memory, Over indicator). It also provides an Audio Vectorscope and a separate phase meter. Add the multi-channel software module to extend the Multi-channel PPM with these functions and enhance the Multi-Correlator (up to phase meters).



RTA/Real Time Analyser

This module provides a spectral distribution display with 31 bands for single channels, channel pairs or groups, plus HF HF band. Add the multi-channel software module for signals with more than two channels.



SSA/Surround Sound Analyser

This tool helps visualise the "interaction of all important parameters of surround signals." The dynamic behaviour of all display elements corresponds to a subjective listening experience, enabling you to see the balance of a surround programme intuitively.

Loudness & SPL
This option (Standard with the TC version) expands the basic stereo PPM with Loudness measuring functions as described in EBU Loudness Measuring Documents (EBU R 128, Tech. Doc. 3341, 3342, et al.) and ITU BS-1770 guidelines. The SPL display module features various weighting filters and integration options. This instrument includes the LRA instrument, featuring a Magic Eye view that combines the two essential measurements.