SECTOR-PRO

VER. OIR. SENTIR...

EQUIPAMIENTO TECNICO

SALAS MEDIANAS

1.- VIDEO PROYECTORES

EPSON 12 K EB-L1505UH. (12.000 lumens)***

*** **MEJORA**

EB-L1505UH

FICHA TÉCNICA

. otente proyector láser 3LCD WUXGA de 12.000 lúmenes que ofrece un brillo y una nitidez de imagen excepcionales, un rendimiento de larga duración y un mantenimiento reducido.

El proyector láser EB-L1505UH ofrece un potente rendimiento WUXGA de 12.000 lúmenes con colores brillantes y vivos, es perfecto para usarse en salas grandes y auditorios, y una vez instalado, no tendrás que preocuparte de nada más. Dado que su instalación se adapta a cualquier situación y no requiere un mantenimiento alto, este proyector mejorado con tecnología 4K constituye una solución perfecta para los espacios que exijan un rendimiento y una resistencia superiores.

Imágenes con precisión láser
Asegúrate de que tus presentaciones, imágenes y vídeos causan un gran impacto con la proyección vívida y nítida de este proyector láser 3LCD. Está diseñado para usarse en salas de gran tamaño, las imágenes de alta resolución WUXGA que proyecta son vivas y brillantes, incluso a plena luz del día, mientras que la tecnología de rueda de fósforo inorgánica proporciona una luz superior y resistencia al calor para ofrecer una excelente fiabilidad que dura hasta 83.000 horas[1].

Mejora 4K
Para una experiencia de visualización de un nivel superior, el proyector cuenta con mejora de 4K que confiere una nitidez y una claridad excepcionales a las imágenes, y garantiza que el texto de las presentaciones se lea a la perfección.

Colocación flexible
Gracias a una nueva gama de lentes motorizadas, que incluyen opcionalmente lentes de distancia ultracorta (UST por sus siglas en inglés), el proyector se beneficia de una auténtica flexibilidad de instalación de 360°, lo que permite su colocación casi en cualquier lugar sin que se pierda brillo ni se distorsione la imagen. El proyector también dispone de una cámara incorporada para garantizar la precisión en la calibración y la captura de imágenes con fines diagnósticos (puede desactivarse por completo para evitar el acceso remoto).

Nuevo software versátil
Todos los modelos de la serie EB-L1000 pueden aprovechar las ventajas del software Epson Professional Projector Tool gratuito a partir de diciembre de 2017. Permite configurar instalaciones de varios proyectores de inmediato, con facilidad y rapidez, así como utilizar técnicas avanzadas como la asignación de proyección y la combinación de bordes.

CARACTERÍSTICAS PRINCIPALES

- **Tecnología de fuente de luz láser**
  Brillo y colores excepcionales, y una vez instalado, no tendrás que preocuparte de nada más.
- **Imágenes en alta definición (HD) con tecnología de mejora 4K**
  Nitidez excepcional, claridad y detalle para conseguir imágenes claras y texto legible
- **Nuevo software versátil**
  Configura varios proyectores y utiliza técnicas de proyección avanzada
- **Instalación flexible 360°**
  Flexibilidad total sin distorsión ni pérdida de luminosidad
- **Mayor tranquilidad**
  El producto incluye una garantía de 5 años, 20.000 horas.

No.1 SINCE 2001
EPSON
WORLD LEADER
IN PROJECTORS
Source: Futuresource Consulting Ltd

EPSON®
EXCEED YOUR VISION

ESPECIFICACIONES DEL PRODUCTO

TECNOLOGÍA	
Sistema de proyección	Tecnología 3LCD
Pantalla LCD	1,03 pulgada con C2 Fine
IMAGEN	
Emisión de luz en color	12.000 Lumen- 8.400 Lumen (económico) de conformidad con IDMS15.4
Emisión de luz blanca	12.000 Lumen - 8.400 Lumen (económico) de conformidad con ISO 21118:2012
Emisión de luz en color vertical	12.000 lm
Emisión de luz blanca vertical	12.000 lm
Resolución	WUXGA, 1920 x 1200, 16:10
Relación de contraste	2.500.000 : 1
Native Contrast	2.000 : 1
Correción keystone	Manual vertical: ± 45 °, Manual horizontal ± 30 °
Reproducción del color	Hasta 1.070 millones de colores
ASPECTO	
Relación proyección	1,57 - 2,56:1
Zoom	Motorizado, Factor: 1 - 1,6
Lens position memory	10 positions
Tamaño de la imagen	60 pulgadas - 500 pulgadas
Distancia proyector objetivo gran angular	2 m - 17,2 m
Distancia proyector tele	3,3 m - 27,8 m
Distancia de proyección gran angular/teleobjetivo	1,99 m - 27,77 m
Lente de proyección número F	1,8 - 2,5
Distancia focal	36 mm - 57,35 mm
Foco	Motorizado
CONECTIVIDAD	
Interfaces	Entrada de audio Stereo mini-jack (3x), Salida de audio Stereo mini-jack, HD-BaseT, Entrada BNC, Entrada HDMI, Entrada DVI, Salida VGA, Entrada VGA, Interfaz Ethernet (100 Base-TX/10 Base-T), RS-232C, USB 2.0 Tipo B (Sólo Servicio), HD-SDI, LAN inalámbrica b/g/n (2,4 GHz) (opcional)
Aplicación Epson iProjection	Ad-Hoc / Infraestructura
FUNCIONES AVANZADAS	
Seguridad	Protección Kensington, Barra de seguridad, Bloqueo de unidad LAN inalámbrica, Seguridad de LAN inalámbrica, Protección por contraseña
Características	4K mejora, Negro profundo, Calibración automática, Logo de usuario personalizable, Interpolación de fotogramas, Cámara integrada para la calibración y la captura de imágenes, Memoria de posición de la lente
Modos de color	Cine, Dinámico, Presentación, DICOM SIM, Multi Projection, BT709
GENERAL	
Consumo de energía	908 vatio, 597 vatio (económico), 0,3 vatio (Standby), On mode power consumption as defined in JBMS-84 833 vatio
Dimensiones del producto	586 x 492 x 211 mm (ancho x profundidad x altura)
OTROS	
Garantía	60 meses Reparación en taller o 20.000 h Ampliación de garantía opcional disponible

INFORMACIÓN LOGÍSTICA

Código SKU	V11H910140
Código de barras	8715946647005
País de origen	China

EB-L1505UH

INCLUYE

- Mando a distancia incl. pilas
- Guía rápida
- Cable de alimentación y señal (3 m)
- Cable VGA
- Cubierta de cable
- Manual en CD

ACCESORIOS OPCIONALES

- Air Filter - ELPAF51
  V13H134A51
- 3D Polarizer - ELPPL01
  V12H618A01
- Ceiling Mount - ELPMB47 Low EB-G7000/L1000
  V12H802010
- Ceiling Mount - ELPMB48 High EB-G7000/L1000
  V12H803010
- HDBaseT Transmitter - ELPHD01
  V12H547040
- Stacking Frame - ELPMB50 - L1000 Series (Premium)
  V12H003B50
- Wireless LAN Adapter - ELPAP10
  V12H731P01

LENTES OPCIONALES

- Lens - ELPLL08 - Long throw - G7000/L1000 series
  V12H004L08
- Lens - ELPLM10 - Mid throw 3 - G7000/L1000 series
  V12H004M0A
- Lens - ELPLM11 - Mid throw 4 - G7000/L1000 series
  V12H004M0B
- Lens - ELPLM15 - Mid Throw L1500/L1700 Series
  V12H004M0F
- Lens - ELPLU03 - G7000 & L1000 Series ST off axis 1
  V12H004U03
- Lens - ELPLU04 - G7000 & L1000 Series ST off axis 2
  V12H004U04
- Lens - ELPLW05 - G7000 & L1000 Series wide zoom 1
  V12H004W05
- Lens - ELPLW06 - L1500U/1505U wide zoom 2
  V12H004W06
- Lens - ELPLX02 - UST Lens L1500/1700 Series
  V12H004X02

Epson Ibérica, S.A.U.
Tel.: 93 582 15 00
Tel.: 902 49 59 69 (Preventa)
Fax: 93 582 15 55
www.epson.es

Central: Sant Cugat
Camí de Ca n'Ametller, 22
Edificio 2
08195 Sant Cugat del Vallès (Barcelona)

1. - Vida útil de láser de hasta 83.000 horas en modo personalizado.

2. MONITORES DE VIDEO

- **SANSUNG PLASMAS KV6300FLAT SMART 4K VHD TV 40”**

SANSUNG
J6300F Flat Smart Full HD TV

PLASMAS 40", 43", 55" y 60"

3. MESA DE MEZCLAS SONIDO

- **YAMAHA TF**

YAMAHA

DIGITAL MIXING CONSOLE

TF SERIES

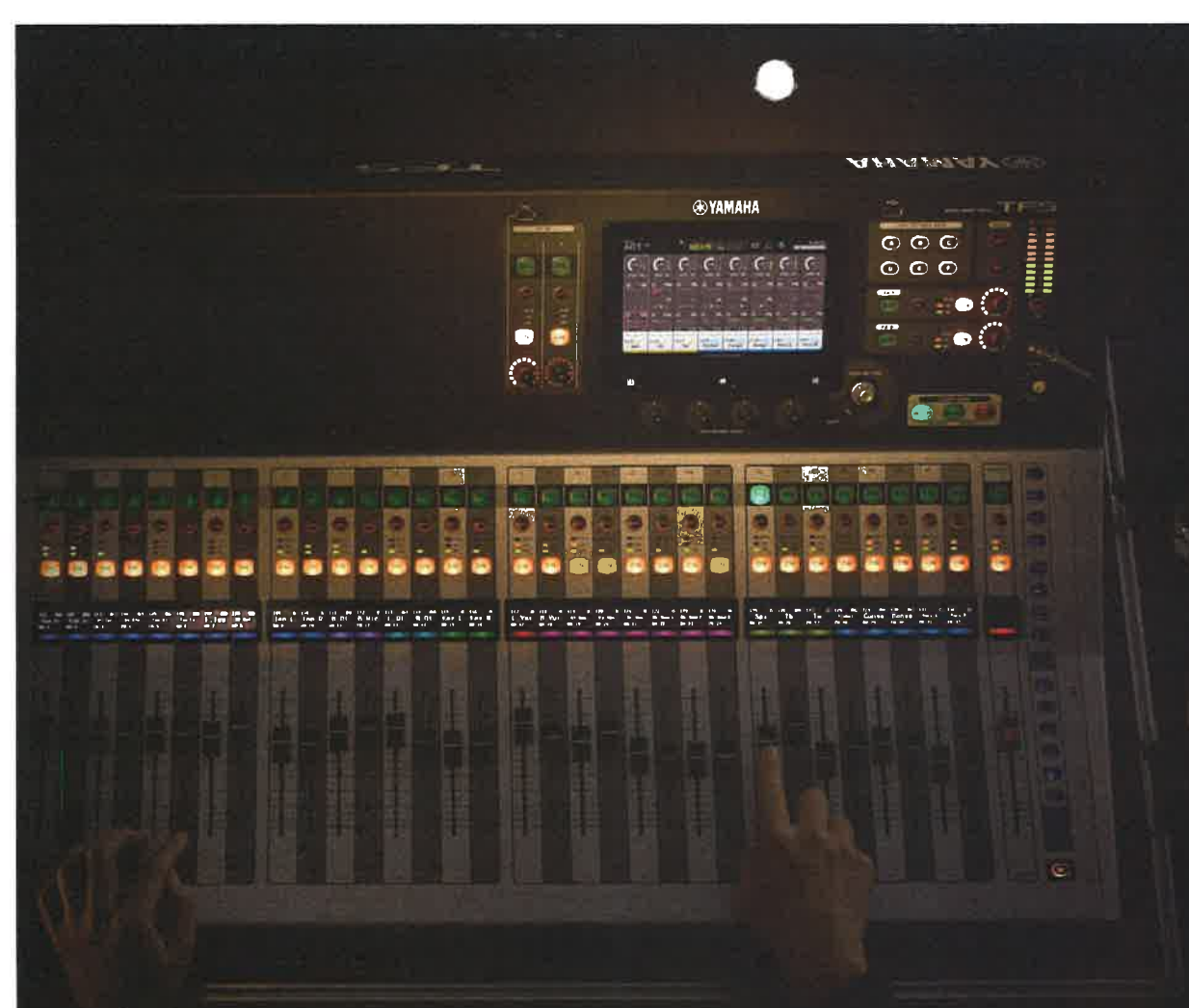
Design Meets Intuition

Yamaha has always made it a mission to stay in touch with the needs of sound engineers worldwide. The outcome is evident in the success of the recent CL and QL series digital mixing consoles, and the flagship RIVAGE PM10. The key to success has always been in supporting the user's creativity. Creativity is most effective when unrestricted, and now Yamaha has created a new digital mixing console that gives the user's intuition even freer rein. TouchFlow Operation™ introduced in the TF series consoles allows the user to respond to the music and artists on stage with unprecedented speed and freedom, taking live sound reinforcement to a new level of refinement. With the TouchFlow Operation interface optimized for touch panel control, experienced engineers as well as newcomers to the field will find it easier than ever to achieve the ideal mix. Recallable D-PRE™ preamplifiers support sound quality that will satisfy the most discerning professional ears, while advanced live recording features and seamless operation with high-performance I/O racks give these compact digital mixers capabilities that make them outstanding choices for a wide range of applications. Experience the intuitive control and creative freedom that a truly evolved digital console can provide.

DIGITAL MIXING CONSOLE

TF SERIES

TF5 TF3 TF1 TF-RACK

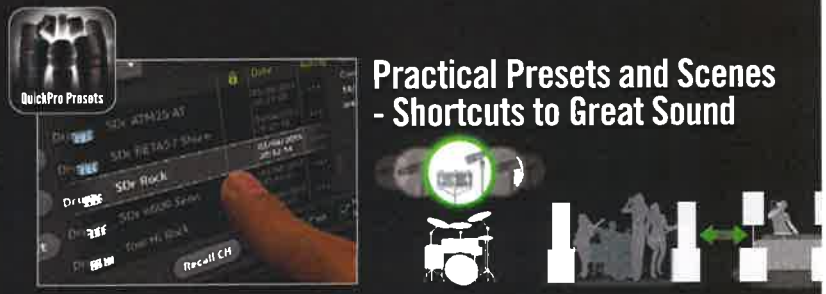


ol Flow

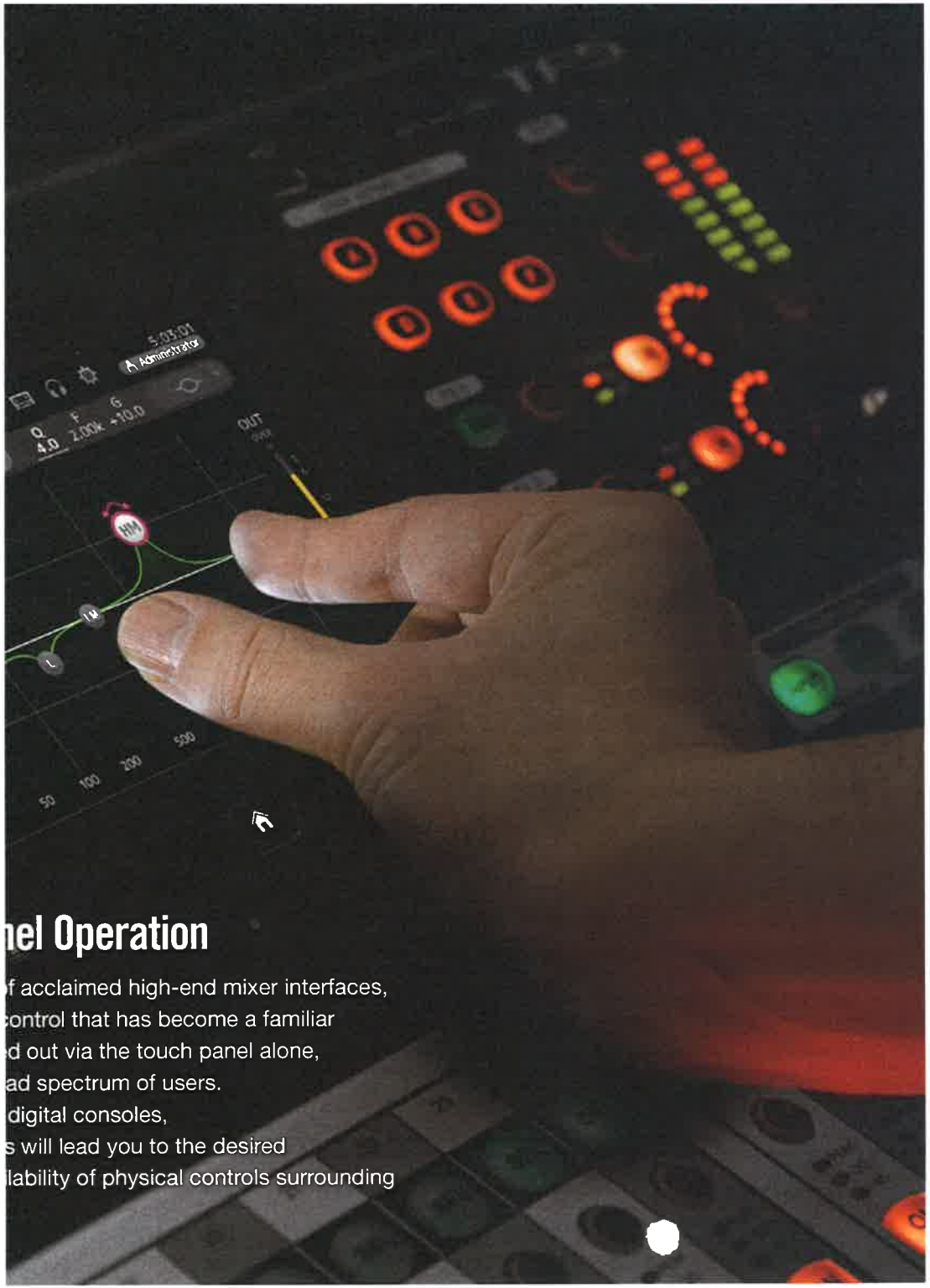
engineers worldwide
garded Selected Channel
series combines Yamaha know-how
r an evolved experience
nes, refined design,
ese elements comprise
edented comfort and

Intuitive User Interface Optimize for Touch Panel Operation

New Features for Smooth Setup and Operation



Practical Presets and Scenes - Shortcuts to Great Sound



nel Operation

f acclaimed high-end mixer interfaces,
control that has become a familiar
d out via the touch panel alone,
ad spectrum of users.
digital consoles,
s will lead you to the desired
lability of physical controls surrounding

Touch Operation for Intimate Control

Refined for the smoothest possible operation via touch-panel control, the TF user inter
The display content has been specifically designed for easy, direct accessibility, with a
as shaping the sound with your fingertips.

Touch & Turn Knob Offers Extra Control Precision

When you need extra precision for a fine EQ or other adjustment, the physical Touch & Turn knob is always available right beside the touch panel. There are also four User Defined Knobs below the panel that can be assigned to control compressor threshold, EQ gain, or other parameters you need fast, direct access to while mixing. The knobs always affect the currently selected channel.

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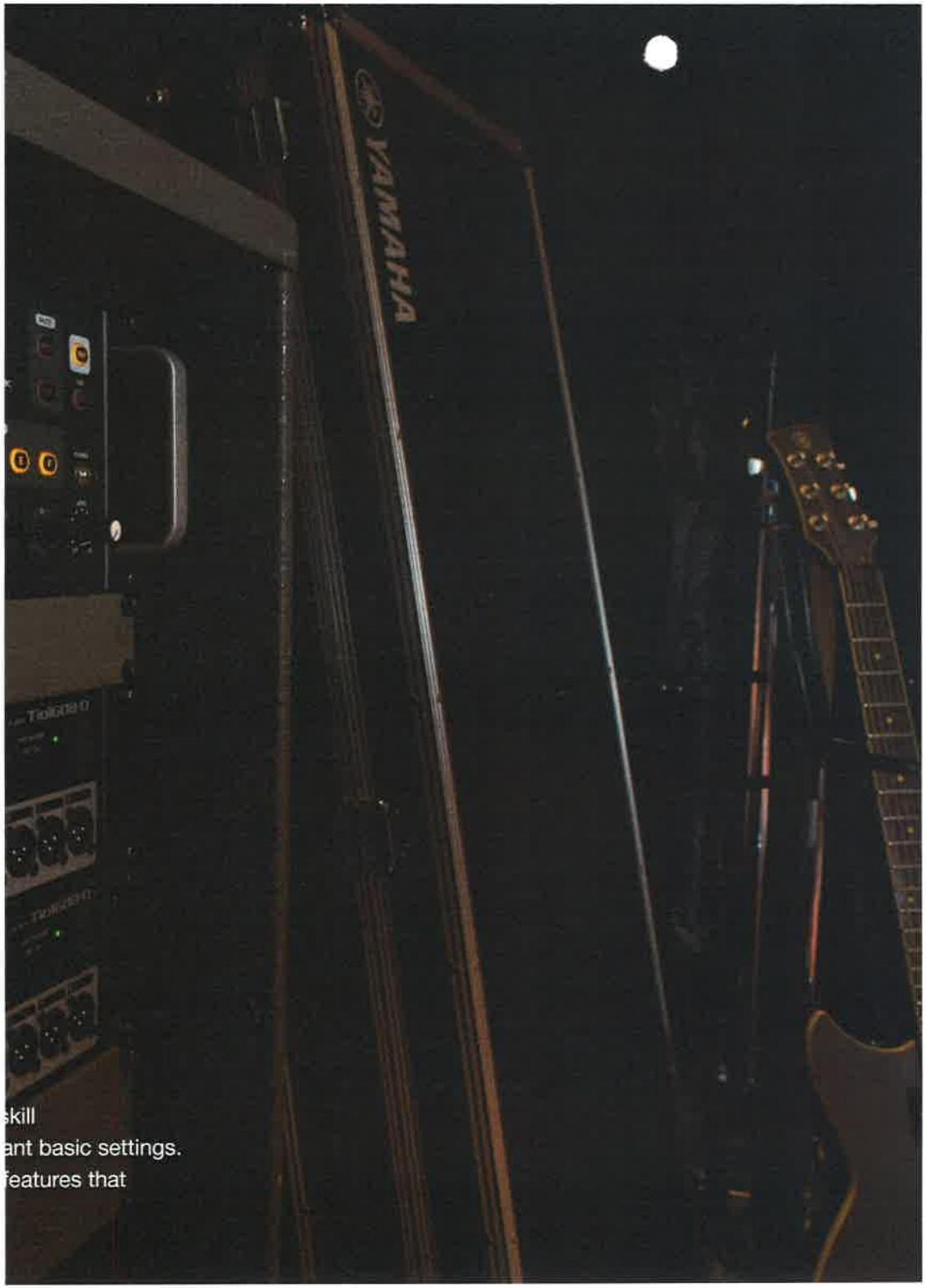

skill
ant basic settings.
features that

1-knob COMP™ & 1-knob EQ™: One Knob to Dial In the Ideal Sound

An experienced engineer can do a lot with a compressor: bring a guitar to life, add pur tighten up a snare, and make vocals ride clearly on the mix. The 1-knob COMP can do easily, without the need to juggle multiple parameters to achieve the desired effect. Originally introd mixers, the 1-knob COMP quickly became a popular and valued feature. It has now been further re that adds new setup ease and efficiency to the TF consoles.

The same concept has been applied in a new 1-knob EQ feature that provides notably improved sp operation. 1-knob EQ has been painstakingly fine-tuned by Yamaha R&D staff in cooperation with c engineers, to ensure that you can achieve outstanding results with minimum effort in the shortest p Mode makes it easier than ever to achieve a clear, well defined vocal sound, while an Intensity Mod "intensity" control over EQ curves you either select from the presets or create from scratch.

But there's more: the 1-knob COMP and 1-knob EQ are provided on the output channels too, so y overall output compression or EQ that ideally matches the room and audience size. The output 1-kn Mode in place of the Vocal Mode, effectively increasing the sound pressure level while maintaining rotate the knob.

Both the 1-knob COMP and 1-knob EQ provide quick access to the full compressor and EQ displa settings as required.

1-knob COMP

TF Editor Facilitates Offline Editing Plus Showtime Control

The TF Editor application for Windows and Mac computers provides a complete interface for offline editing and setup of TF consoles, with scene and preset management capabilities plus convenient keyboard entry of channel names. In addition to being able to set up the console offline at any convenient location and time, the TF Editor can be used online at the same time as the TF StageMix and MonitorMix applications. A Windows 8 PC with a multi-touch screen can use the same gestures as on the console itself. And if using Wi-Fi, a PC can function as a convenient remote-mixing device. Up to three devices running TF Editor or StageMix can be connected at the same time.

TF StageMix™ for Wireless Mixing

TF StageMix is an iPad application that provides wireless control of TF series consoles, allowing remote mixing from audience seating, in front of floor monitors, or any other listening position. It can also be used at the console as an extension of the console's own interface. The TF StageMix interface is designed for similar operation and flow to the console display, making it easier than ever to refine the mix from any location.

Personal Monitoring with MonitorMix

The MonitorMix application for the TF Series allows individual wireless AUX mixing from up to 10 iPhone, iPad or iPod touch devices simultaneously. Each performer can have convenient control over the AUX buses assigned to them, without having to deal with complex settings or parameters. They can also create personal Group settings for even easier adjustment: all levels on just one fader, for example. Since up to three devices running TF Editor or StageMix and up to 10 devices running MonitorMix can be connected at the same time, even large bands can have the personal control they need, reducing demands on the sound engineer.

Available on the App Store

* TF StageMix and MonitorMix can be downloaded from Apple's App Store at no charge.
* Apple, the Apple logo, iPad, iPhone, iPod touch and Mac are trademarks of Apple Inc., registered in the U.S. and App Store is a service mark of Apple Inc.

QuickPro Presets™ Provide Instant Access to Pro Sound Setups

Working with microphone manufacturers such as Audio-Technica, Sennheiser and Shure as well as respected engineers, and evaluating a large number of microphones, musical instruments, speaker systems, and in-ear monitors, the Yamaha R&D team focused on creating a range of shortcuts to great sound that would be effective in a wide variety of live-sound situations. Armed with these practical presets even the novice engineer can get very close to the ideal sound, while experienced engineers will appreciate the significant time savings they can provide starting points for further adjustments.

The QuickPro Presets can be searched by instrument type and recalled quickly and easily. The presets include HA gain, EQ, Comp and other settings, right down to the channel name and color. The 1-knob EQ and 1-knob COMP can be used with QuickPro Presets, providing a super streamlined way to tweak the sound.

The output channel preset library includes parameter sets optimized for Yamaha powered speakers, with several variations to match different environments and room sizes. Presets are provided for in-ear monitors too. All of these can be used as is when time is tight, but they are also great starting points for manual fine tuning. Setups created from the presets or from scratch can be saved as additional presets too.

Two Scene Memory Banks

The scene memory features banks A and B, each capable of holding up to 100 scenes. That's a total of 200 scenes that can be set up and instantly recalled whenever needed.

A number of scenes are pre-programmed to give users a head start: scenes with the 1-knob COMP and 1-knob EQ controls engaged for the easiest possible operation, and scenes with the 1-knob features disabled for experienced engineers who might want to follow an established procedure. The banks are great for organizing different types of scenes: one for scenes categorized by music type, and the other by event type, for example.

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Comment from Sennheiser

SENNHEISER

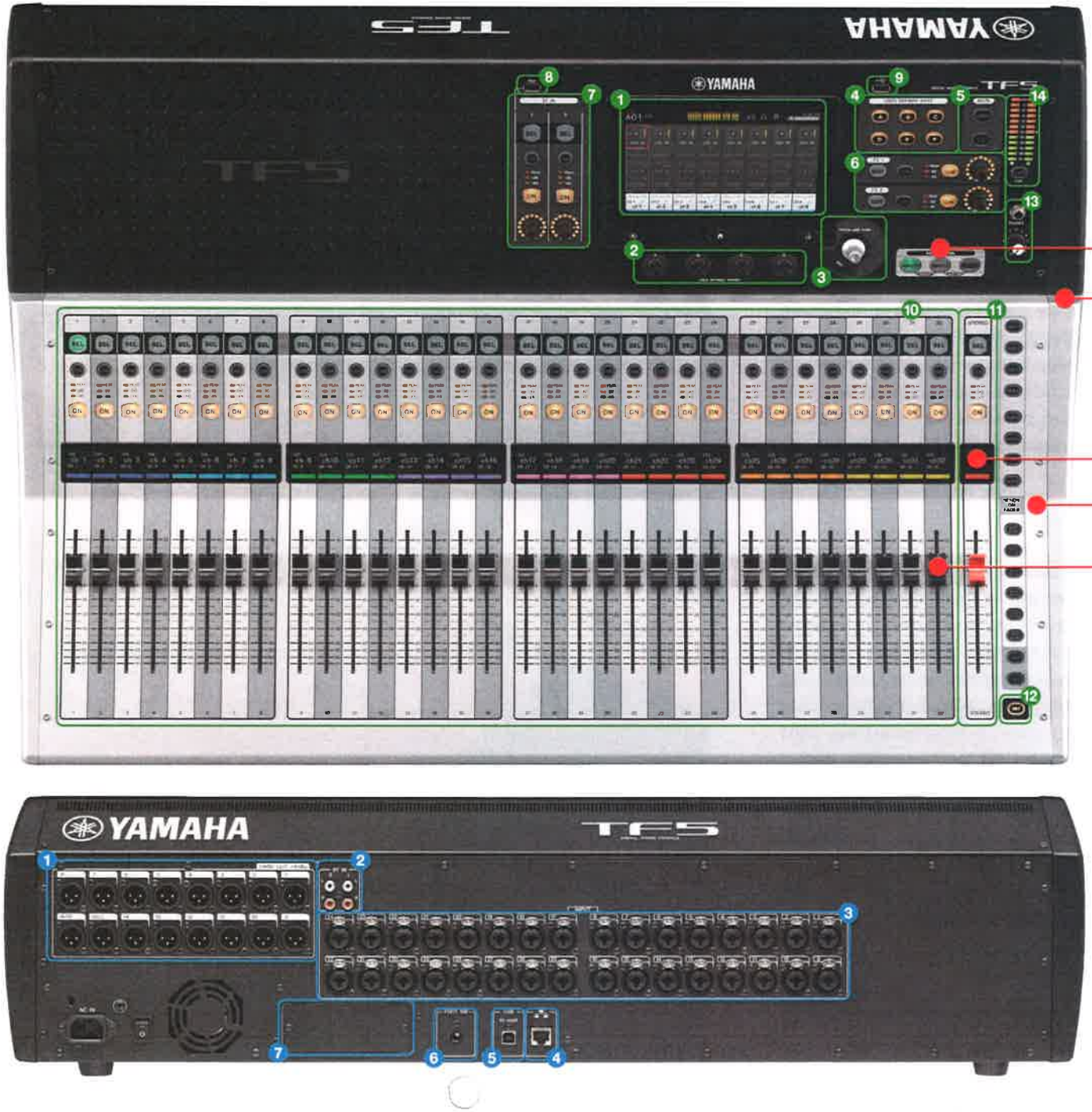
Michael Polten, Product Management & Marketing, Live Performance & Music

"The presets in the Yamaha TF series digital mixers provide users with an accurate indication of how to set the EQ for a wide variety of instrument/microphone combin ations. These preset functions give the sound technician a solid basis to start from. All that is need ed is to adapt the EQ-ing to the specific room and the instruments."

Comment from Shure

Matt En

"We're thrilled to be offering QuickP KSM and PG Alta microphones in th experience with the versatile new TF engineers at any level of experience effective sound checks and perform audio instead of chasing problems.



Comprehensive Fader Bank se

Two INPUT banks and one OUTPU selected by pressing both the INPU the levels of multiple channels to be CUSTOM fader bank where you ca

DCA Roll-out Enhances Group

When the GROUP fader bank is select as Roll-out faders. Selecting one of the belonging to that group to the Roll-out and other parameters of individual cha

Channel Name and Color

A display panel located above each ch the port name, and the current fader se operation can also be displayed. A col navigation a breeze, and prevents conf

Faders Provide a C

The TF5 has 33 motor All rear-panel inputs h glance and they can be directly an

SENDS ON FADER section

The SENDS ON FADER buttons ins the faders for easy verification and engaged the MASTER fader acts a can be checked and controlled wit

Advanced Design Promotes Sn

The upper section of the panel is d memos, and/or other small items. the operator maximum visibility an

ı that maximizes visibility and operability.
ɔK.

ınd TURN section:
eration with a very simple
ıuch a parameter on the
elect,
ıe knob to adjust.

4 USER DEFINED KEYS section:
Assign mixer settings that you use often to these six buttons for instant access, such as direct one-touch recall of specified scenes.

5 MUTE section:
Multiple inputs or effects can be muted with a single operation.

6 Comprehensive Fader Bank section:
Two INPUT banks and one OUTPUT bank are provided, and the GROUP bank can be selected by pressing both the INPUT bank buttons simultaneously. The GROUP bank allows the levels of multiple channels to be controlled from a single DCA fader. There's also a CUSTOM fader bank where you can assign any input, output, and DCA group to any fader. DCA Roll-out Enhances Group Control: When the GROUP fader bank is selected, all faders other than DCA masters 1 through 8 function as Roll-out faders. Selecting one of the DCA groups instantly "rolls out" the input channels belonging to that group to the Roll-out faders. This useful function makes it easy to adjust the level and other parameters of individual channels while using the eight DCA faders for overall mixing.

7 iPad conn
8 USB conn
9 TAP key
10 CLEAR CU
11 PHONES s

ınd 8 line outputs.It features the same recallable D-PRE™ microphone preamplifiers

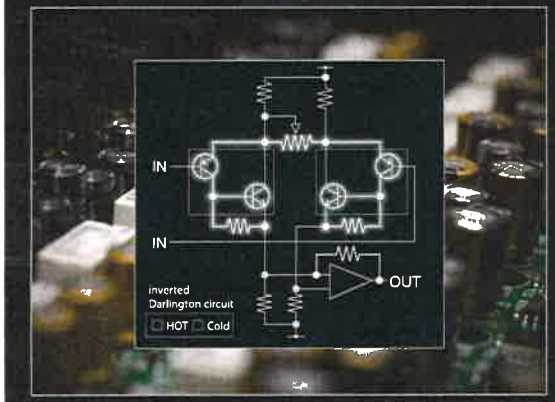
UICK CONFIG switch **5** +48V MASTER switch

TF-RACK : Rear **1** FAN switch **2** DIP switch **3** PRIMARY and SECONDARY Dante connec

e Freedom

can take over.
in the TF series.

not only deliver outstanding quality,
ssessed and redesigned where necessary to
cked up by an updated selection of
ors such as EQ, gates,
d spectrum of creative capabilities.



Various mix to maultiple speaker systems -Mat

Four matrix out channels with delay parameters that a
large venues, installations where separate mixes are f
some degree of delay compensation.

stems. From simple 2-track recording and playback using a USB storage device* to
station), the TF series is ready to roll. TF consoles come supplied with
tracks to be recorded to a computer connected to the console via USB 2.0.
o from an iPhone or iPad can be played back via a
AW input can be individually selected for each channel
hecks or rehearsals.

NUENDO live

ves.

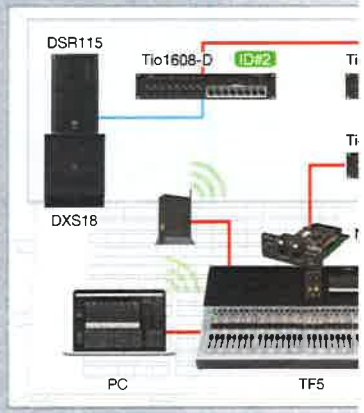
A High-performance Stagebox Solution that's Simple to Set Up

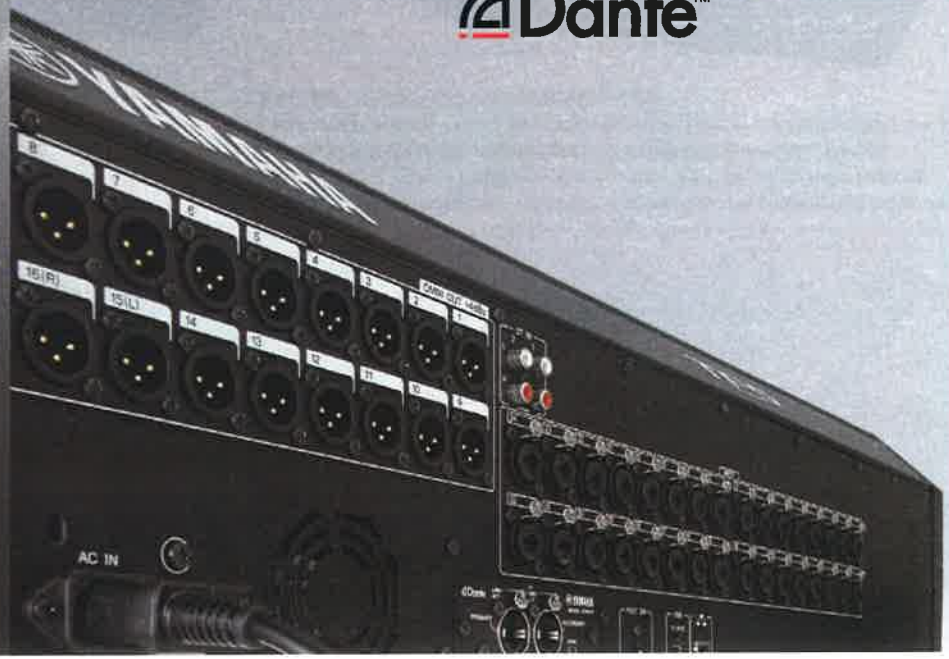
The natural, musical sound that was a key element of the TF Series design policy is carried on without compromise in the Tio1608-D I/O Rack. Mechanical construction, circuit board layout, power supply, grounding, and parts selection have all been executed with meticulous attention to detail and quality, and exhaustive performance and listening tests were carried out at each stage of development. For networking the same Dante protocol implemented in higher end Yamaha digital consoles is used for precise synchronization, low latency, low jitter, and high sample accuracy. In addition to superior performance, a Tio1608-D stage box system can be set up in just three easy steps.

Dante™

System expansion with Tio160

Tio1608-D allows you to easily exp
system up to 40ch inputs/24ch out
a Plug In & Play method. Simply co
select the device IDs and the syste
control is available via Cat5e. Stag
remote control of the console from
the audience etc.





s that allow selection between a USB source such as an iPad, iPhone, USB storage device, PC,
n channels, can be simultaneously verified directly via the control panel.
for the first time in a digital console. This allows preamp setup to be recalled from scene memory
where full-console changes need to be made on the fly. In addition to all-around performance
eight and compact for unrivalled portability and space savings.

via USB 2.0 +

ıce card

DIGITAL MIXING CONSOLE

TF5

- 33 motor faders (32 channels + 1 master)
- 48 input mixing channels (40 mono + 2 stereo + 2 return)
- 20 AUX (8 mono + 6 stereo) + stereo + sub buses
- 8 DCA groups with Roll-out
- 32 analog XLR/TRS combo mic/line inputs + 2 analog RCA pin stereo line inputs
- 16 analog XLR outputs
- 34 x 34 digital record/playback channels via USB 2.0 + 2 x 2 via a USB storage device
- 1 expansion slot for NY64-D audio interface card

DIGITAL MIXING CONSOLE

TF1

- 17 motor faders (16 channels + 1 master)
- 40 input mixing channels (32 mono + 2 stereo + 2 return)
- 20 AUX buses (8 mono + 6 stereo) + stereo + sub
- 8 DCA groups with Roll-out
- 16 analog XLR/TRS combo mic/line inputs + 2 analog RCA pin stereo line inputs
- 16 analog XLR outputs
- 34 x 34 digital record/playback channels via USB 2.0 + 2 x 2 via a USB stora
- 1 expansion slot for NY64-D audio interface card

Dante™

outs. The Tio1608-D preamplifiers
8-D to a TF console at the mixing
ılky, heavy multi-cables and
asy setup. Up to three Tio1608-D
box system with as many as 48
nits are used with a TF series

Audio Interface Card

NY64-D

Dante™

The NY64-D is an I/O expansion card for TF series consoles that allows transmission and reception of up to 128 channels (64 in/64 out) of uncompressed 48 kHz 24 bit digital audio data via a Dante™ audio network.
Used in conjunction with the Tio1608-D I/O it becomes possible to create a versatile stage box system with up to 48 inputs and 24 outputs.

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TF Seriese Input / Output Specifications

Analog input characteristics

Input Terminals	GAIN	Load Impedance	For Use With Nominal	Input Level			Connector	balanced / Unbalanced
				Sensitivity*1	Nominal	Max. before clip		
INPUT1-32 (TF5) INPUT1-24 (TF3) INPUT1-16 (TF1)	+66dB	7.5kΩ	50-600Ω Mics or 600Ω Lines	-82dBu (61.6μV)	-62dBu (0.616mV)	-42dBu (6.16mV)	Combo Jack (XLR-3-31 type *2 or TRS phone *3)	Balanced
	-6dB			-10dBu (245mV)	+10dBu (2.45V)	+30dBu (24.5V)		
ST IN 1,2	—	10kΩ	600Ω Lines	-30dBV (31.6μV)	-10dBV (316mV)	+10dBV (3.16V)	RCA Pin Jack	Unbalanced

*1 Sensitivity is the lowest level that will produce an output of +4dBu (1.23V) or the nominal output level when the unit is set to maximum gain. (All faders and level controls are at maximum position.)
*2 1: GND, 2: HOT, 3: COLD *3. Tip: HOT, Ring: COLD, Sleeve: GND *4 In these specifications, 0dBu = 0.775Vrms.
*5 +48V DC (phantom power) can be supplied to INPUT XLR type connectors via each individual software controlled switch.

Analog output characteristics

Output Terminals	Source Impedance	For Use With Nominal	GAIN SW	Output Level		Connector	balanced / Unbalanced
				Nominal	Max. before clip		
OMNI OUT 1-16	75Ω	600Ω Lines	"+24dBu" position (default)	+4dBu (1.23 V)	+24dBu (12.3 V)	XLR-3-32 type *1	Balanced
PHONES *5	100Ω	40Ω Phones	—	3mW	75mW	Stereo Phone Jack (TRS) *2	Unbalanced

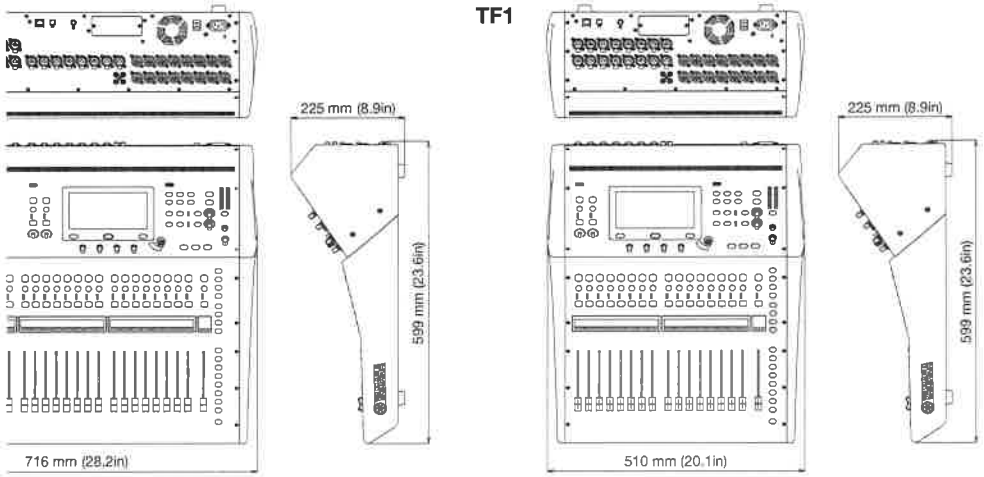
*1 1: GND, 2: HOT, 3: COLD *2 Tip: LEFT, Ring: RIGHT, Sleeve: GND *3 In these specifications, 0dBu = 0.775Vrms *4 All output DA converters are 24bit, 128times oversampling.
*5 The position of the level control is lowered by 16dB from the maximum.

Digital input /output specifications

Terminals	Format	Data length	Audio	Connector
USB (TO HOST)	USB	24bit	34ch input / 34ch output, PCM	USB (B type)
iPad	USB	—	Playback: MP3 or WAV file data / Record: WAV file data	USB (A type)

Control I/O specifications

Terminals	Format	Level	Connector
NETWORK	IEEE802.3	10BASE-T/100Base-TX	RJ-45
FOOT SW	—	—	TS Phone



Specifications

TF-Rack General Specifications

		TF-RACK
Fader Configuration		—
Mixing Capacity	Input Channels	40 (32 mono + 2 stereo + 2 return)
	Main Buses	Stereo + Sub
	Aux Buses	20 (8 mono + 6 stereo)
	Groups	8 DCA Groups
I/O Connectors	Inputs	16 mic/line (XLR/TRS combo)+ 1 stereo line (RCA pin)
	Outputs	16 (8 XLR + 8 TRS phone)
	Expansion Slot	1 (for NY64-D)
Signal Processors		8 Effects + 10 GEQ
Recording/Playback	PC/Mac (USB2.0)	Recording:34-track / Playback:34-track
	USB Storage Device	Recording: 2-track (USB HDD/SSD) / Playback: 2-track(USB HDD/SSD/Flash memory)
Sampling Frequency	Internal Clock	48 kHz
Signal Delays		Less than 2.6 ms, INPUT to OMNI OUT, Fs=48 kHz
Fader		Resolution = 10-bit, +10 dB to –138 dB, –∞ dB all faders
Frequency Response		+0.5, –1.5 dB 20 Hz–20 kHz, refer to +4 dBu output @1kHz, INPUT to OMNI OUT
Total Harmonic Distortion*2		Less than 0.05% 20 Hz–20 kHz @+4 dBu into 600 Ω, INPUT to OMNI OUT, Input Gain=Min.
Hum & Noise*3		–128 dBu typ., Equivalent Input Noise, Input Gain=Max., –85 dBu, Residual output noise, ST master off
Dynamic Range		110 dB typ., DA Converter, 108 dB typ., INPUT to OMNI OUT, Input Gain=Min.
Crosstalk@1 kHz		–100 dB*1, adjacent INPUT/OMNI OUT channels, Input Gain=Min.
Dimensions (W x H x D)		480 mm x 132 mm x 409 mm(18-7/8 in x 5 1/4 in x 16 1/8 in)
Net Weight		9.2kg (20.3 lb)
Power Requirements (wattage)		85 W
Power Requirements (voltage and hertz)		100–240 V 50/60 Hz
Temperature Range		Operating temperature range: 0–40 °C / Storage temperature range: -20–60 °C
Included Accessories		Quick Guide, Power Cord, NUENDO LIVE (DAW Software), Rubber stoppers(4)
Options		Audio Interface Card (NY-64D), Foot Switch (FCS)

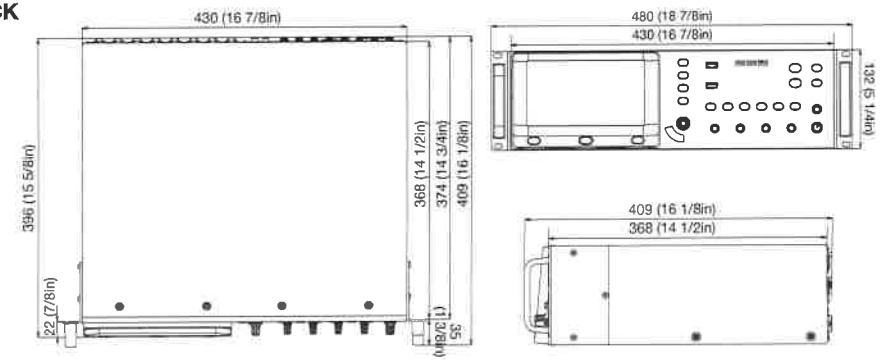
*1 Crosstalk is measured with a –30 dB/octave filter@22 kHz. *2 Total Harmonic Distortion is measured with a –18 dB/octave filter@80 kHz.
*3 Hum & Noise are measured with an A-Weight filter.

Tio1608-D General Specifications

		Tio1608-D
Sampling frequency rate (External)		44.1kHz or 48kHz
Total harmonic distortion		Less than 0.1% +4dBu@20Hz-20kHz into 600Ω, Gain=+66dB / Less than 0.05% +4dBu@20Hz-20kHz into 600Ω, Gain=-6dB, INPUT to OUTPUT, Fs=44.1kHz, 48kHz *Measured with a -18dB/octave filter @80kHz
Frequency response		+0.5, -1.5dB 20Hz-20kHz, refer to the nominal output level @1kHz, INPUT to OUTPUT, Fs=44.1kHz or 48kHz
Dynamic range		108 dB, INPUT to OUTPUT, Gain=-6dB / 112 dB, DA Converter
Hum & noise level	Equivalent input noise	-128dBu, Gain=+66dB *Measured with A-weighting filter
	Residual output noise	-88dBu, ST master off *Measured with A-weighting filter
Crosstalk		-100dB, adjacent INPUT/OUTPUT channels, Input Gain = -6dB *Measured with a -30dB/octave filter @22kHz
Heat dissipation		100-240V, 50/60Hz, 43.5kcal/h
Power requirements		100-240V, 50/60Hz
Power consumption		50W
Dimensions (W x H x D)		480mm x 88mm x 364mm (18-7/8" x 3-4/8" x 14-3/8")
Net weight		5.7kg (12.6lbs)
Accessories		Owner's Manual, Power Cord (2.5m), Rubber stoppers (4)
Others		Temperature Range: Operating temperature range: 0 - 40°C, Storage temperature range: -20 - 60°C

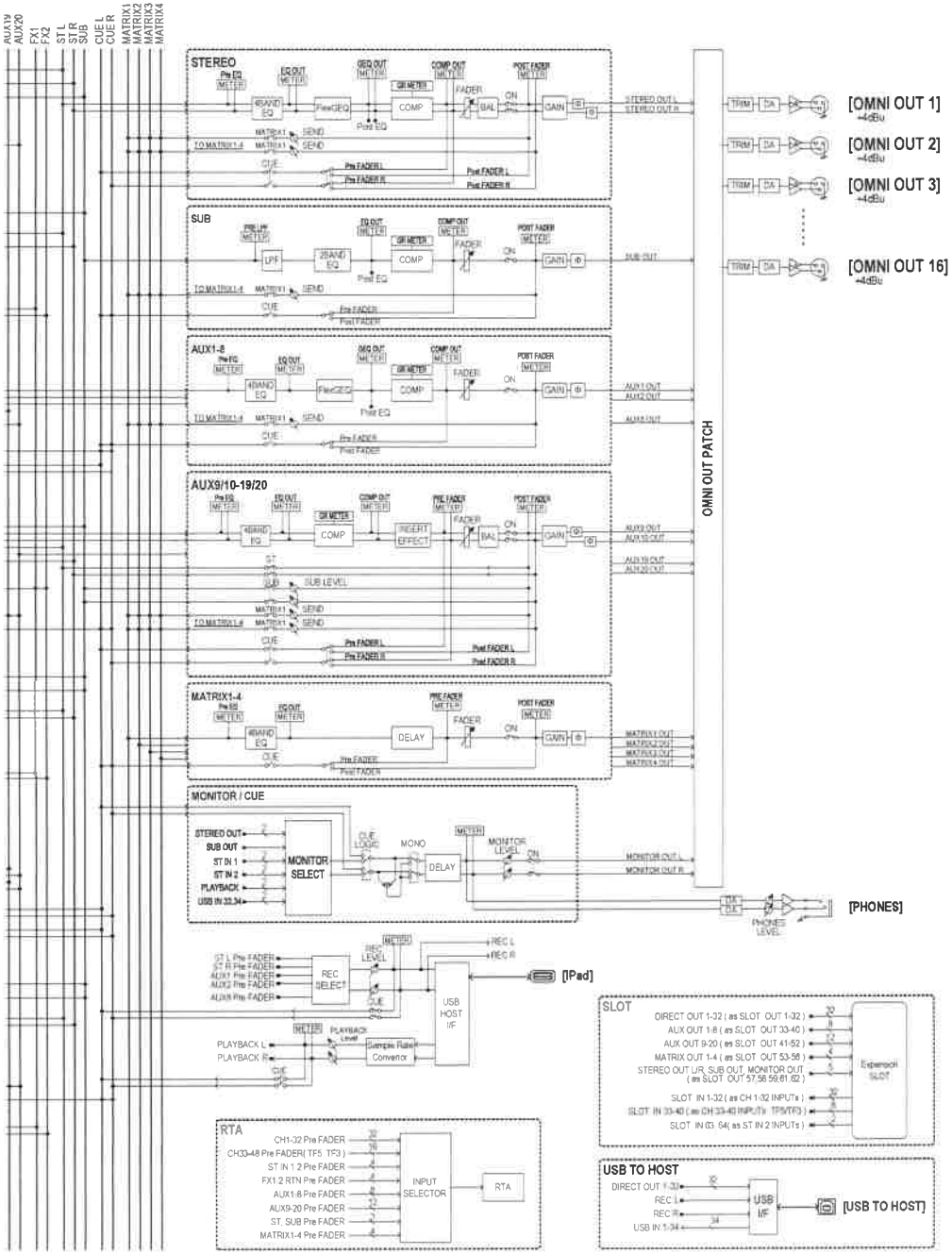
Dimensions

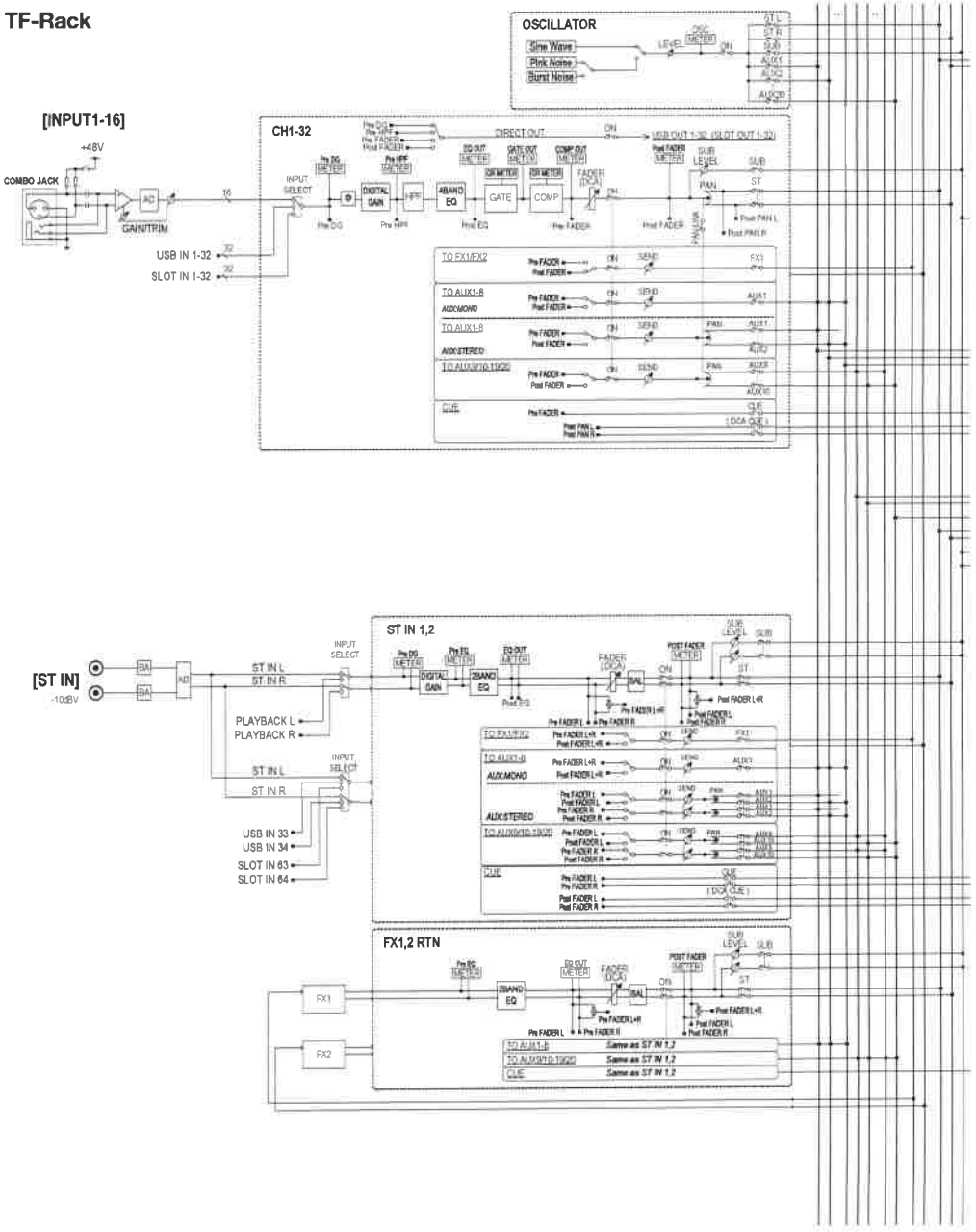
TF-RACK



Block Diagram

TF-Rack





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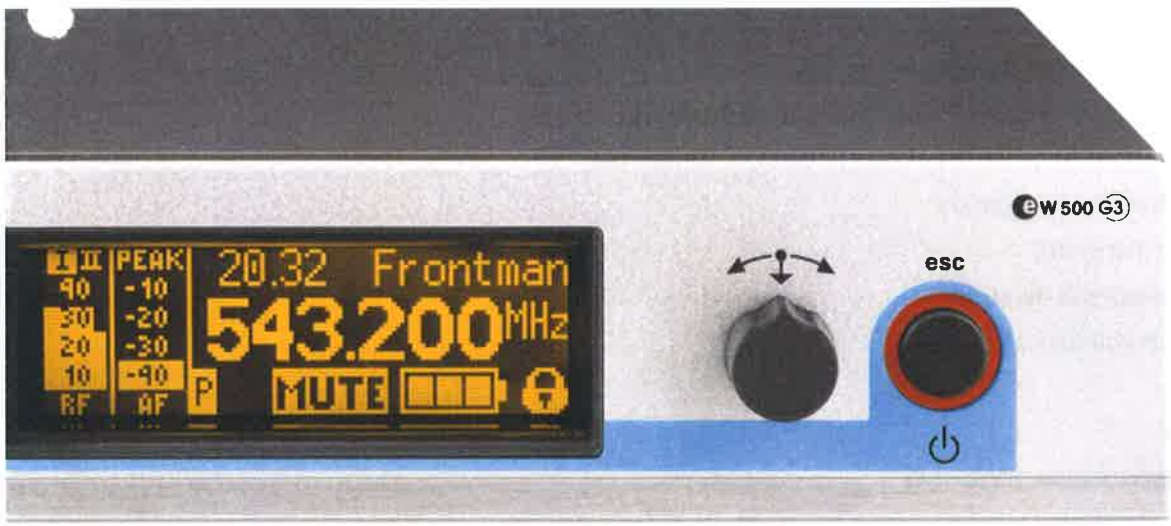
4. MICROFONIA INALAMBRICA

- **SENNHEISER SERIE 500**

SENNHEISER >> Microfonia Inalambrica >> Evolution >> Serie 500

503120



ew 572 G3 SET

Sistema inalámbrico RF para instrumentos con conector jack de ¼"" (guitarras, bajos...). Incluye el compacto transmisor para instrumento SK 500 G3 y el receptor para montaje en rack EM 500 G3.
Contiene 20 bancos de frecuencias, cada uno con hasta 32 pre-configuraciones accesibles directamente - listas para su uso inmediato. 42 Mhz de ancho de banda, afinador integrado, ecualizador, sincronización transmisor-receptor por infrarrojos, y modo soundcheck.

CARACTERÍSTICAS

- Puerto Ethernet para conectar los receptores a un PC por medio del software de control WSM (Wireless System Manager) – de esta manera podemos tener una vista completa de los canales tanto de micrófonos como de monitores, en sistemas complejos multicanal.
- Sincronización automática transmisor-receptor por medio de infrarrojos
- Gestión de frecuencias mejorada, con hasta 24 frecuencias compatibles en cada banco, con un total de 20 bancos disponibles más 6 bancos usuario
- 42 MHz de ancho de banda con hasta 1.680 frecuencias posibles
- Display iluminado de matriz de puntos bi-color (indicador de alertas)
- Indicador de nivel de batería de 4 pasos
- Más opciones de control (menú)
- Rango mejorado de respuesta de audio
- Rango ampliado de sensibilidad de audio
- Modo "Soundcheck"
- Ecualizador integrado
- Potencia de salida seleccionable 10/30 mW
- Conmutador remoto opcional
- Modos de "Mute" configurables. Conmutador de mute de fácil acceso en el transmisor de mano
- Contactos de recarga de las baterías BA2015, integrados directamente en los transmisores

INCLUYE

- 1 receptor de montaje en rack EM 500 G3
- 1 transmisor bodypack SK 500 G3
- 1 cable CI 1
- 1 juego de montaje en rackGA 3 rack mount
- 1 unidad de fuente de alimentación NT 2
- 2 antenas
- 2 baterías AA
- Instrucciones de operación

PRODUCTOS RELACIONADOS

ew 512 G3 Set

ew 500-935 G3 SET

ew 500-945 G3 SET

ew 500-965 G3 SET

em 500-G3

sk 500-G3

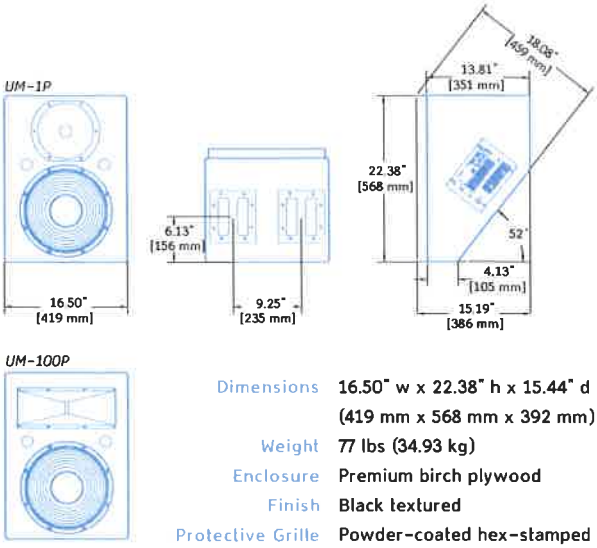
skm 500-935-G3

skm 500-945-G3

5. MONITOR DE AUDIO

- **LACOSUTICS XT 115 HIQ**
- **TRUBOSOUND TMW 112**

UM-1P/UM-100P : Narrow/Wide Coverage Stage Monitors



Dimensions	16.50" w x 22.38" h x 15.44" d (419 mm x 568 mm x 392 mm)
Weight	77 lbs (34.93 kg)
Enclosure	Premium birch plywood
Finish	Black textured
Protective Grille	Powder-coated hex-stamped steel, foam covering

The UM-1P and the UM-100P self-powered stage monitors are designed for high-level, full-bandwidth monitoring, cleanly reproducing stage mixes that include vocals and musical instruments. These units provide efficient response down to 60 Hz. The compact enclosure houses a 12-inch cone driver and a 3-inch-diaphragm compression driver. The combination of high-performance drivers and perfectly matched drive electronics yields flat amplitude and phase response plus near-perfect impulse response over the full audio bandwidth — with benefits including lower susceptibility to feedback. Maximum SPL is 133 dB at one meter, with exceptionally low distortion.

Two different high-frequency coverage patterns are available. The UM-1P provides a narrow, symmetrical beamwidth of 45 degrees horizontal and vertical, allowing close placement of monitors with minimal interaction between them. The UM-100P offers coverage of 100-degrees horizontal and 40-degrees vertical, permitting broad coverage in stage monitoring applications.

The constant-Q design of the high-frequency horns provides uniform beamwidth across the entire operating range in both the horizontal and vertical planes. Attenuation outside the beamwidth is rapid and uniform at all frequencies, with minimal side lobing.

Each driver is individually powered by a dedicated channel of the proprietary class AB/bridged amplifier with complementary MOSFET output stages. Total power is 550 watts. The incoming audio signal is processed through an electronic crossover and correction filters for flat phase and frequency response as well as for driver protection. Phase-corrected electronics ensure flat acoustical amplitude and phase response, resulting in exceptional impulse response and precise imaging.

Field-replaceable audio input modules accommodate a range of applications. The standard version offers looping XLR input and output connectors, while an enhanced looping version adds polarity switching (the looping output is not affected) and input attenuation (0 dB to -18 dB). A summing mono version with two inputs is also available.

The amplifier/processing package incorporates Meyer Sound's Intelligent AC™ system, which performs automatic voltage selection, EMI filtering, soft current turn-on and surge suppression, and allows fail-safe operation worldwide.

The UM-P cabinet is constructed from premium birch plywood and covered in a black textured hard-shell finish. Recessed handles allow easy transit, a hex-stamped steel grille protects the speakers, and a grey foam grille covering is included. The enclosure can be custom painted for applications requiring specific cosmetics.

UM-P models are compatible with the RMS™ remote monitoring system, which offers comprehensive monitoring of system parameters on a Windows®-based network.

FEATURES & BENEFITS

- Flat frequency and phase response afford high levels of gain before feedback
- The UM-1P offers a symmetrical, constant-Q horn for precise coverage with minimal interaction between adjacent units
- The UM-100P offers a wide-coverage constant-Q horn, providing maximum freedom of movement for performers
- High peak power ensures excellent transient response
- Low-profile cabinet preserves sight lines
- Built-in precision electronics eliminate the need for external crossovers and amplifiers

APPLICATIONS

- Vocal stage monitor
- Monitor for keyboard and other instruments
- Stage monitoring sidefill
- Stage monitoring drum fill (in combination with USW-1P subwoofer)

UM-1P/UM-100P SPECIFICATIONS

ACOUSTICAL	
Operating Frequency Range[1]	60 Hz – 18 kHz
Frequency Response[2]	65 Hz – 17 kHz ±4 dB
Phase Response	500 Hz – 16 kHz ±35°
Maximum Peak SPL[3]	133 dB
Dynamic Range	>110 dB
COVERAGE	
	UM-1P: 45° x 45°; UM-100P: 100° horiz. x 40° vert.
CROSSOVER[4]	
	UM-1P: 1000 Hz; UM-100P: 1200 Hz
TRANSDUCERS	
Low Frequency	One 12" cone driver Nominal impedance: 2 Ω Voice coil size: 3" Power-handling capability: 400 W (AES)[5]
High Frequency	One 3" compression driver Nominal impedance: 16 Ω Voice coil size: 3" Diaphragm size: 3" Exit size: 1.4" throat Power-handling capability: 100 W (AES)[5]
AUDIO INPUT	
Type	Differential, electronically balanced
Maximum Common Mode Range	±15 V DC, clamped to earth for voltage transient protection
Connectors	Female XLR input with male XLR loop output or VEAM all-in-one (integrates AC, audio and network)
Input Impedance	10 kΩ differential between pins 2 and 3
Wiring	Pin 1: Chassis/earth through 220 kΩ, 1000 pF, 15 V clamp network to provide virtual ground lift at audio frequencies Pin 2: Signal + Pin 3: Signal – (optional polarity reversal switch)[6] Case: Earth ground and chassis
DC Blocking	Differential DC blocking up to maximum common mode voltage
CMRR	>50 dB, typically 80 dB (50 Hz – 500 Hz)
RF Filter	Common mode: 425 kHz; Differential mode: 142 kHz
TIM Filter	<80 kHz, integral to signal processing
Nominal Input Sensitivity	0 dBV (1 V rms, 1.4 V pk) continuous average is typically the onset of limiting for pink noise and music
Input Level	Audio source must be capable of producing a minimum of +20 dBV (10 V rms, 14 V pk) into 600 Ω to produce maximum peak SPL over the operating bandwidth of the loudspeaker
AMPLIFIER	
Type	Two-channel complementary MOSFET output stages (class AB/bridged)
Output Power[7]	550 W total
THD, IM, TIM	<.02 %
Load Capacity	2 Ω low channel, 16 Ω high channel
Cooling	Convection; 24 V DC output for optional external fan
AC POWER	
Connector	PowerCon or VEAM
Voltage Selection	Automatic, continuous range from 90 V AC to 265 V AC
Safety Agency Rated Operating Range	100 V AC – 240 V AC; 50/60 Hz
Turn-on and Turn-off Points[8]	90 V AC on, no turn-off, only fuse-protect above 265 V AC
Current Draw	
Idle Current	0.25 A rms (115 V AC); 0.13 A rms (230 V AC); 0.3 A rms (100 V AC)
Max Long-Term Continuous Current (>10 sec)	2.8 A rms (115 V AC); 1.4 A rms (230 V AC); 3.2 A rms (100 V AC)
Burst Current (<1 sec)	3.2 A rms (115 V AC); 1.6 A rms (230 V AC); 3.7 A rms (100 V AC)
Ultimate Short-Term Peak Current Draw	5.0 A pk (115 V AC); 2.5 A pk (230 V AC); 5.8 A pk (100 V AC)
Inrush Current	<9 A pk (115 V AC and 230 V AC)
RMS NETWORK (OPTIONAL)	
	Equipped for two-conductor, twisted-pair network, reporting amplifier operating parameters to system operator's host computer.

NOTES:

1. *Recommended maximum operating frequency range. Response depends on loading conditions and room acoustics.*
2. *Half-space loading (monitor on the floor), measured with 1/3-octave frequency resolution at 1.5 meters.*
3. *Measured with music at 1 meter.*
4. *At this frequency, the mid- and high-frequency transducers produce equal sound pressure levels.*
5. *Power handling is measured under AES standard conditions: transducer driven continuously for two hours with band-limited noise signal having a 6 dB peak-average ratio.*
6. *Two additional input module options are available with a polarity reversal switch and an attenuator (0 dB to –18 dB): one looping and one with two inputs for mono summing.*
7. *Amplifier wattage rating based on the maximum unclipped burst sine-wave rms voltage that the amplifier will produce into the nominal load impedance. Low channel 30 V rms (42 V pk) into 2 ohms; high channel 32 V rms (45 V pk) into 16 ohms.*
8. *No automatic turn-off voltages. Voltages above 265 V AC are fuse protected but may cause permanent damage to the power supply. Voltages below 90 V AC may result in intermittent operation.*

Made by Meyer Sound Laboratories Berkeley California USA
European Office
Meyer Sound Ltd. Gratkorn
Carl Zeiss Strasse 13
5631 Pöch, Germany

N775

3K69 COMMERCIAL AUDIO SYSTEM
US LISTED

UM-1P/UM-100P – 04.079.007.01 C

MEYER SOUND LABORATORIES INC.
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Berkeley, CA 94702

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F: +1 510 486.8356

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ARCHITECT SPECIFICATIONS

The loudspeaker shall be a self-powered stage monitor; two models shall be available. The transducers shall consist of a 12-inch diameter cone driver and a 3-inch diaphragm compression driver on a 45-degree symmetrical or a 100-degree horizontal x 40-degree vertical horn, depending on the model.

The loudspeaker system shall incorporate internal processing electronics and a two-channel amplifier. Processing functions shall include equalization, phase correction, signal division and protection for the high- and low-frequency sections. The crossover point shall be 1000 Hz or 1200 Hz, depending on the model. Each amplifier channel shall be class AB/bridged with complementary MOSFET output stages. Burst capability shall be 550 watts total with nominal 16-ohm resistive load for the high-frequency channel and 2-ohm for the low-frequency channel. Distortion (THD, IM, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows, measured at 1/3-octave resolution: Operating frequency range shall be 60 Hz to 18 kHz. Phase response shall be ±35° from 600 Hz to 16 kHz. Maximum peak SPL shall be 133 dB at 1 meter. Coverage shall be 45 degrees by 45 degrees, or 100 degrees by 40 degrees, depending on the model.

The audio input shall be electronically balanced with a 10 kOhm impedance and accept a nominal 0 dBV (1 V rms, 1.4 V pk) signal. Connector shall be XLR (A-3) type female with parallel looping male. RF filtering shall be provided, and CMRR shall be greater than 80 dB from 50 Hz to 500 Hz. Two additional input module options shall be offered with an attenuator and polarity reversal switch; one with loop-through output, and another with two summing inputs instead of the loop-through input and output.

The internal power supply shall perform automatic voltage selection, EMI filtering, soft current turn-on and surge suppression. Powering requirements shall be nominal 100, 110 or 230 V AC line current at 50 or 60 Hz. UL and CE operating voltage range shall be 100 to 240 V AC. Maximum peak current draw during burst shall be 5 A at 115 V AC, 2.5 A at 230 V AC and 5.8 A at 100 V AC. Current inrush during soft turn-on shall not exceed 9 A at 115 V AC. AC power connectors shall be PowerCon or VEAM all-in-one multi-pin connector.

The loudspeaker system shall provide facilities for installing Meyer Sound's optional RMS remote monitoring system. All components shall be mounted in an acoustically vented wedge-shaped enclosure constructed of premium birch plywood with a black textured hard-shell finish. The front grille shall be hex-stamped steel covered by charcoal gray foam. Dimensions shall be 16.50" wide x 22.38" high x 15.44" deep (419 mm x 568 mm x 392 mm). Weight shall be 77 lbs (34.93 kg). The enclosure front angle shall be 52 degrees.

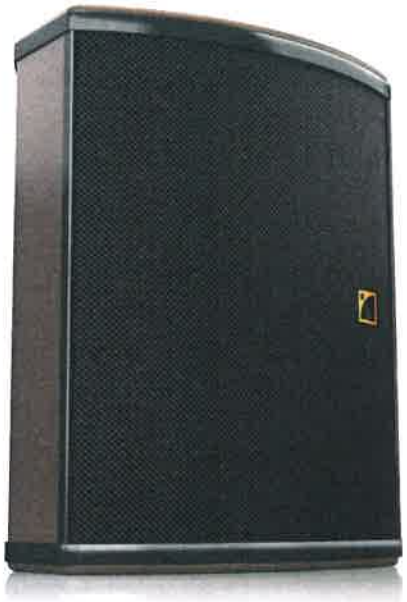
The loudspeakers shall be the Meyer Sound UM-1P or UM-100P.

115XT HiQ

COAXIAL STAGE MONITOR

The **115XT HiQ** is the high-end model within the L-ACOUSTICS® XT coaxial series, designed for stage monitor and distributed FOH applications. It operates as an active 2-way enclosure, over a frequency bandwidth from 50 Hz to 20 kHz which can be lowered to 32 Hz with the addition of the SB18 subwoofer.

The 115XT HiQ enclosure contains a 3" diaphragm compression driver loaded onto a constant directivity conical waveguide united in a coaxial configuration with a 15" low frequency transducer. Integrated into a compact low profile bass-reflex tuned enclosure this coaxial transducer arrangement produces a 50° axi-symmetric directivity output along with a smooth tonal response free of any secondary lobes over the entire frequency range, resulting in exceptional immunity to feedback especially in monitoring situations.



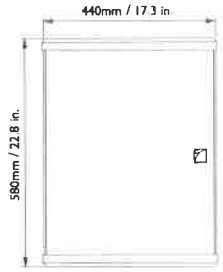
Made of high-grade Baltic birch plywood, the wedge-shaped cabinet design makes the 115XT HiQ perfectly suited to short or long throw monitoring use with two fixed angle settings of 30° and 60° from vertical. The 115XT HiQ can also be pole-mounted using the integrated socket or flown using the complementary ETR15 bracket or XTLIFTBAR accessory.

The control and amplification of the 115XT HiQ is managed by the L-ACOUSTICS® LA8 platform. The active DSP filtering encompasses advanced crossover functions, system EQ, HF and LF transducer time alignment, and dual protection of the transducers (PEAK and RMS). The L-ACOUSTICS® LA8 amplified controller offers the following drive modes:

- "FULL RANGE" mode for 115XT HiQ standalone use at nominal bandwidth ([HIQ_FR], [HIQ_FI] and [HIQ_MO] presets)
- "HIGH-PASS" mode with 100 Hz high-pass filter to possibly associate the complementary SB18 subwoofer ([HIQ_FR_100], [HIQ_FI_100] and [HIQ_MO_100] presets)

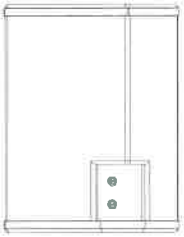
For each mode a distinction is drawn between [FRONT], [FILL] and [MONITOR] presets as they respectively match front of house, distributed applications and half-space loading operating conditions.

The performances of the 115XT HiQ enclosure depend upon the choice of preset and physical system configuration.



FRONT

TOP



REAR

Usable bandwidth (-10dB)	50 Hz - 20 kHz ([HiQ_FR] preset)
Nominal directivity (-6dB)	50° Axi-symmetric
Maximum SPL[1]	139.5 dB ([HiQ_MO] preset) 136.5 dB ([HiQ_FI] preset)
RMS handling capacity	LF : 450 W HF : 125 W ([HiQ_FI] preset)
Components	LF: 1 x 15" neodymium transducer HF: 1 x 3" diaphragm compression driver Nominal impedance: 2 x 8 ohms
Physical data	H x W x D: 365 x 580 x 440 mm - 14.4 x 22.8 x 17.3 in Wedge angle: 30° or 60° from vertical Weight (net): 28.5 kg - 62.8 lbs. Connectors: 2 x 4-point Speakon® Material: 18, 24 and 30 mm Baltic birch plywood Finish: Grey-brown RAL 8019® Front: polyester-powder coated steel grill, acoustically transparent Airnet® cloth Rigging: integrated handles and pole mount socket, optional ETR15 bracket and XTLIFTBAR accessory

1 Peak level measured at 1m under half-space (MO) or free field (FI) conditions using 10 dB crest factor pink noise with specified preset and corresponding EQ settings.

HIQ_SP_EN_4-2012-10

MICROFLEX MICROPHONES

THERE'S NEVER BEEN A MORE FLEXIBLE CHOICE.

Work a room in more ways than ever with Shure Microflex microphones. Combining sleek, low profile aesthetics and a complete selection of microphones and mounting options, the Microflex line offers the highest standard of quality and efficiency for installed audio applications.

Microflex Gooseneck Microphones

- 12 cm (5"), 25 cm (10"), 30 cm (12"), 38 cm, (15") and 45 cm (18") models fit a wide variety of applications from the podium to the conference table
- Interchangeable condenser cartridges with superior audio quality

Microflex Boundary Microphones

- Multi-element, low-profile, or wireless microphone styles available
- Extremely versatile range of placement options for easy configuration and installation

Microflex Overhead Microphones

- Compact and adjustable 10 cm (4") gooseneck
- Interchangeable condenser cartridges for accurate sound reproduction in any setting

Microflex Lavalier and Earset Microphones

- For applications requiring low-profile descreet placement
- Use in wired or wireless applications

APPLICATIONS

- **Conference Rooms**
- **Seminars**
- **Houses of Worship**
- **Theaters**
- **Lecterns**

PRODUCT HIGHLIGHTS

- **Wide selection for customized installations**
- **Wired or wireless models available**
- **Superior audio quality**
- **CommShield™ Technology for improved RF resistance**
- **Sleek, low-profile designs**