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

12000 lm | WUXGA | HD-SDI | LASER

HDBaseT | HDCP2.2

DMX- ARTNET

2,500,000:1 | 24/7

CARACTERÍSTICAS PRINCIPALES

- Tecnología de fuente de luz láser
  Brillo y colores excepcionales, una vez instalado, no tendrás que preocuparte de nada más.
- Imágenes en alta definición (HD) con tecnología de mejora 4K
  Nítidez 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.

Potente 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 videos causan un gran impacto con la proyección vivida 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.

Mejora 4K
Para una experiencia de visualización de un nivel superior, el proyector cuenta con mejora de 4K que confiere una nítidez 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.
ESPECIFICACIONES DEL PRODUCTO

TECNOLOGÍA
Sistema de proyección  
Tecnología 3L CD
Pantalla LCD  
1:03 pulgada con C2 Fine

IMAGEN
Emitión de luz en color  
12,000 Lumen-8,400 Lumen (económico) de conformidad con IESNA15-4
Emitión de luz blanca  
12,000 Lumen-8,400 Lumen (económico) de conformidad con ISO 21118:2012
Emitión de luz en color vertical  
12,000 Im
Emitción de luz blanca vertical  
12,000 Im
Resolución  
WXGA, 1280 x 800, 16:10
Relación de contraste  
2,500:1
Nivel Contraste  
2,500:1
Corrección 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 posiciones
Tamaño de la imagen  
60 pulgadas - 350 pulgadas
Distancia proyector objetivo  
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 - 57,30 mm
Foco  
Motorizado

CONEXIVIDAD
 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 II (Sólo Servicio), HD-SDI, LAN inalámbrica b/g/n (2,4 GH) (opcional)
Aplicación Epson Projector  
Ad-Hoc/Infraestructura

FUNCIONES AVANZADAS
Seguridad  
 Protección Kensington, Barras de seguridad, Bloqueo de unidad LAN inalámbrica, Seguridad de LAN inalámbrica, Protección contra contraseñas
Características  
 4K resolución, 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 Proyección, BT2020

GENERAL
Consumo de energía  
906 vatios, 597 vatios (económico), 0,3 vatios (Standby), On mode power consumption as defined in IJBMS-84 833 vatios
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

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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 - ELPLF51
  V13H344A51
• 3D Polarizer - ELPLP01
  V12H16A01
• Ceiling Mount - ELPMB47 Low EB-G70024/L1000
  V12H002010
• Ceiling Mount - ELPMB49 High EB-G70024/L1000
  V12H003010
• HDBaseT Transmitter - ELPHD01
  V12H454040
• Stacking Frame - ELPMB50 - L1000 Series (Premium)
  V12H003500
• Wireless LAN Adapter - ELPAE10
  V12H1731P01

LENTES OPCIONALES
• Lens - ELPLW08 - Long throw - G7000/L1000 series
  V12H004080
• Lens - ELPLM10 - Mid throw 3 - G7000/L1000 series
  V12H0040A0
• Lens - ELPLM11 - Mid throw 4 - G7000/L1000 series
  V12H0040B0
• Lens - ELPLM15 - Mid Throw L1500X/L1100 Series
  V12H0040C0
• Lens - ELPLU03 - G7000 & L1100 Series ST off axis 1
  V12H0040U03
• Lens - ELPLU04 - G7000 & L1100 Series ST off axis 2
  V12H0040U04
• Lens - ELPLW05 - G7000 & L1100 Series wide zoom 1
  V12H0040W05
• Lens - ELPLW06 - L1500U/L1500U/L1500U wide zoom 2
  V12H0040W06
• Lens - ELPLX02 - L1500H/1700 Series
  V12H0040X02

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www.epson.es

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2. MONITORES DE VIDEO

- SAMSUNG PLASMAS KV6300FLAT SMART 4K VHD TV 40”
PLASMAS 40", 43", 55" y 60"
3. MESA DE MEZCLAS SONIDO

- YAMAHA TF
Design Meets Intuition

Yamaha has always made it a mission to stay in touch with the needs of sound engineers worldwide and the flagship RIVAGE PM10. The key to success has always been in supporting the user's creativity. Creativity is most effective when unrestricted.

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. Recalling D-PRE™ preamplifiers support sound quality that will satisfy the most discerning professionals, while advanced live recording features and seamless operation provide.

The outcome is evident in the success of the recent C8 and QL series digital mixing consoles, a brand new digital mixing console that gives the user's intuition even more freedom and flexibility. The outcome is evident in the success of the recent C8 and QL series digital mixing consoles.

Experience the intuitive control and creative freedom that a truly evolved digital console can provide.
ol Flow

eers worldwide
garded Selected Channel
series combines Yamaha know-how
or an evolved experience
nes, refined design,
esse elements comprise
sedented comfort and
Panel Operation

If acclaimed high-end mixer interfaces, control that has become a familiar standard via the touch panel alone, and spectrum of users digital consoles, buttons will lead you to the desired flexibility of physical controls surrounding:

Touch Operation for Intimate Control

Refined for the smoothest possible operation via touch-panel control, the TF user interface. The display content has been specifically designed for easy, direct accessibility, with a focus on 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.
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-k
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 display
settings as required.
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.

* 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 other countries.
* 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.

Comment from 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 combinations. These preset functions give the sound technician a solid basis to start from. All that is needed is to adapt the EQ-ing to the specific room and the instruments."

Comment from Shure
Matt Enman, Senior Engineer

"We’re thrilled to be offering QuickPro KSM and PG Alta microphones in the new TF series experience with the versatile new TF mixing consoles at any level of experience. We can perform effective sound checks and perform audio instead of chasing problems."

Comment from Audio-Technica
"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 combinations. These preset functions give the sound technician a solid basis to start from. All that is needed is to adapt the EQ-ing to the specific room and the instruments."
Comprehensive Fader Bank

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

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 si
operation can also be displayed. A col
navigation a breeze, and prevents con

Faders Provide a C

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

SENGTHS ON FADER section

The SENDS ON FADER buttons in:
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
1 that maximizes visibility and operability.

TURN section:

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

MUTE section:

Multiple inputs or effects can be muted with a single operation.

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.

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

TF-RACK: Rear

1 FAN switch  2 DIP switch  3 PRIMARY and SECONDARY Dante connec
Freedom

can take over.
in the TF series.

not only deliver outstanding quality,
assessed 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 multiple speaker systems - Matrix

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

System expansion with Tio1608-D allows you to easily expand system up to 40ch inputs/24ch out a Plug In & Play method. Simply connect the device IDs and the system control is available via Cat5e. Stage remote control of the console from the audience etc.
that allow selection between a USB source such as an iPad, iPhone, USB storage device, PC, or other devices. These channels can be simultaneously viewed directly via the control panel.

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

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 storage device
- 1 expansion slot for NY64-D audio interface card

Audio Interface Card
NY64-D

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.
### Specifications

**TF-Rack General Specifications**

**TF**

**Features**
- **Input Channels:** 48 (24 mono, 2 stereo, 2 surround)
- **Mixing Capacity:** 48 mono inputs, 8 channel
- **Aux Buses:** 36 stereo (or 6 mono or stereo)
- **Group:** 6 mono
- **Outputs:** 16 mono, 8 stereo, 8 sub groups
- **Expansion Bus:** 8 channels
- **USB Storage Device:** 2-track (USB 2.0/3.0)
- **Software:** 3-chip D-MIXER 3/5 (Quad-core, 8GB RAM, 1TB SSD)

**Audio Performance**
- **Frequency Response:** 20 Hz - 20 kHz, +0.5 dB
- **Total Harmonic Distortion:** <0.05%
- **Dynamic Range:** 110 dB (A-weighted)

**Dimensions**
- **Height:** 4U (483 mm)
- **Depth:** 17.5 (445 mm)
- **Weight:** 27 kg

**Accessories**
- **Power Supply:** 24 VDC

**Tio1606-D General Specifications**

**Tio1606-D**

**Audio Performance**
- **Input Channels:** 32 mono, 16 stereo
- **Mixing Capacity:** 32 mono inputs, 8 channel
- **Aux Buses:** 24 stereo (or 4 mono or stereo)
- **Group:** 6 mono
- **Outputs:** 16 mono, 8 stereo, 8 sub groups
- **Expansion Bus:** 8 channels

**Dimensions**
- **Height:** 4U (483 mm)
- **Depth:** 17.5 (445 mm)

**Accessories**
- **Power Supply:** 24 VDC
- **Weight:** 27 kg

### Control I/O Specifications

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### Digital Input/output Specifications

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**Dimensions**

**TF-Rack**

- **Height:** 4U (483 mm)
- **Depth:** 17.5 (445 mm)
- **Weight:** 27 kg

**Tio1606-D**

- **Height:** 4U (483 mm)
- **Depth:** 17.5 (445 mm)
- **Weight:** 27 kg
4. MICROFONIA INALAMBRICA

- SENNHEISER SERIE 500
SENNHEISER >> Microfonia Inalámbrica >> Evolution >> Serie 500
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
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

#### Acoustic
- **Operating Frequency Range:** 60 Hz – 18 kHz
- **Frequency Response:** 65 Hz – 17 Hz ±4 dB
- **Phase Response:** 500 Hz – 16 kHz ±3°
- **Maximum Peak SPL:** 133 dB
- **Dynamic Range:** >110 dB

#### Coverage
- **Crossover:**
  - UM-1P: 45° x 45°
  - UM-100P: 100° x 40°

#### Transducers
- **Low Frequency:**
  - One 12" cone driver
  - Nominal impedance: 2 Ω
  - Voice coil size: 3"
  - Power-handling capability: 400 W (AES)
- **High Frequency:**
  - One 3" compression driver
  - Nominal impedance: 16 Ω
  - Voice coil size: 3"
  - Diaphragm size: 3"
  - Exit size: 1.4" thread
  - Power-handling capability: 100 W (AES)

#### Audio Input
- **Type:** Differential, electronically balanced
- **Maximum Common Mode Range:** ±15 V DC
- **Input Impedance:** 10 kΩ differential between pins 2 and 3
- **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)
- **DC Blocking:** CMR
- **Audio Source:** Must be capable of producing a minimum of +20 dBV (10 Vrms, 14.4 Vpk) continuous average is typically the onset of limiting for pink noise and music

#### Amplifier
- **Type:** Two-channel complementary MOSFET output stages (class A/B bridged)
- **Output Power:** 550 W total
- **Dimensions:** 2 G low channel, 16 G high channel
- **Cooling:** Connection; 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
- **Turn-on and Turn-off Points:** 90 V AC on, no turn-off, only fuse-protect above 265 V AC
- **Maximum Rms Current:**
  - 0.25 A rms (215 V AC), 0.13 A rms (230 V AC), 0.3 A rms (100 V AC)
- **Current Draw:**
  - 1.4 A rms (230 V AC), 2.3 A rms (100 V AC)
- **Ultimate Short-Term Peak Current Draw:** 25 A pk (230 V AC), 50 A pk (100 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 frequency range depends on loudspeaker level and room acoustics
2. Half-space loading (louver on the floor), measured with 133-octave frequency resolution at 1.5 meters
3. Measured with music at 1 meter
4. All frequency, the mid- and high-frequency transducers produce equal sound pressure levels
5. Power handling is measured under AES standard conditions: transducer driver 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 unglided burst sine-wave rms voltage that the amplifier will produce into the nominal load impedance. Low Channel 30 V rms (42 Vpk) also 2 ohms, high channel 32 V rms (46 Vpk) also 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
9. Voltages below 90 V AC may result in intermittent operation.

### 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 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. Processes 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 A/B with complementary MOSFET output stages. Burst capability shall be 250 watts total with nominal 16-ohm resistive load for the high-frequency channel and 2-ohms for the low-frequency channel. Distortion (THD, IMD, TIM) shall not exceed 0.02%.

Performance specifications for a typical production unit shall be as follows, measured at 123-octave resolution: Operating frequency range shall be 60 Hz to 18 kHz. Phase response shall be ±3° from 60 Hz to 3 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 loudspeaker system shall provide facilities for installing Meyer Sound's optional ISM wireless monitoring system. All components shall be mounted in an acoustically treated wedge-shaped enclosure constructed of premium birch plywood with a black texturized horn finish (4.9 cm x 1.2 cm), 1.9 cm metal grille, with a black texturized horn finish (4.9 cm x 1.2 cm). The enclosure front shall be 53 degrees.
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® LAB 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® LAB 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.

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**Usable bandwidth (-10dB)**

50 Hz - 20 kHz ([HiQ_FR] preset)

**Nominal directivity (-6dB)**

50° Axi-symmetric

**Maximum SPL**

139.5 dBA ([HiQ_MO] preset)
136.5 dBA ([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 Airtex® cloth
Rigging: integrated handles and pole mount socket, optional ETR15 bracket and XTLIFTBAR accessory

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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.
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 discreet 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