



Professional Audio Systems





WISYCOM is a dynamic and modern RF design and manufacturing company based on experience, technical competence and flexibility.

Our company is staffed by experts with considerable RF design knowledge and experience.

We are committed to custom-made solutions to the highest possible technical standards for the professional broadcast sector.

A lean and flexible distribution system assures our presence in all European countries and also outside Europe.

STRUCTURED company
LEADING edge TECHNOLOGY
SERVICE oriented
INNOVATION oriented



professional wireless microphone systems

our company



In our company, we study, design and build the most sophisticated RF solutions for radio microphones, IFB and presenter cues, radio talk-back and reporter systems available today in the professional broadcast marketplace. We provide durable, flexible, reliable and practical products. The products are conceived from specific company foundations such as attention to our customers' needs and requests, the great value of teamwork and technical competence in every single step of production and research.

Research & development



Our primary goal is to offer you the best quality wireless solutions and also the simplest, quickest and, in the long term, the most cost effective ones. Experience, high technical competence, thousands of hours devoted to training our staff, analysis and study of our products, careful market analysis are WISYCOM's main strengths.

product & organization



We are driven by great attention to detail and ultimate quality. For this reason we study and select carefully all our materials and components, we follow closely every step of production, final checks and fine tuning to give you the quality guaranteed by WISYCOM.

customer service



WISYCOM is technical advisor and a true partner to every customer.

We offer you a constant presence, ready to help you any time you need. From custom design to evaluation and dimensioning of systems we stand by our customers in every step of the process.



AGILE

Always find the "perfect frequency" thanks to the huge 232 MHz tuning window

IMMUNITY

The highest channel usage thanks to phase cancelling circuitry which cancels transmitter intermodulation

FIDELITY

No more compromises in audio quality thanks to the 2 compander modes selectable on the transmitter!

EASY & QUICK TO USE

High contrast OLED display with intuitive menu-based structure and dedicated buttons for quick audio gain and channel selection

HIGH-PERFORMANCE

Superb audio quality, cutting edge UHF radio-technology and up to 14 hours battery operation

RUGGEDIZED

Ceramic coating and aluminium for a light and very sturdy mechanical construction



ACCURATE

Outstanding sonic performance with its wide range of custom capsules and great pop suppression with a special stainless steel 35 µm micromesh filter



MCM 30x

MICROPHONE HEADs

The ideal choice for speech and vocalists!

MCM30x gives you the freedom to choose among several capsules: DPA, Schoeps, Audio Technica, Milab all with outstanding tonal performance: its frequency response is very smooth over the full 40-20kHz range.

Moreover a 2 stage micro-mesh in stainless-steel was specially designed to achieve unbeatable efficiency in suppressing pops.

The polar pattern can be omnidirectional, cardioid, super-cardioid or hypercardioid.

MTH 400

HAND-HELD TRANSMITTERs

Especially designed for professional wireless microphone applications with a very rugged mechanical construction, up 232 MHz bandwidth. Very easy and quick to use thanks to OLED display, 1 joggle selector for menu selection and dedicated buttons for quick setup of desired gain and channel. MTH400 benefits from the latest Wisycom RF technology, and have been especially designed for robustness against noise and inter-modulation (available also with the RF circulator option).

Very rugged mechanical construction.

THE **IDEAL** CHOICE for speech and VOCALIST

PUSH TO TALK (PTT)

Route your audio remotely directly from your wireless transmitter, by simply pushing a small button

STYLISH

Advanced design with a very thin and ergonomic body and perfect weight balance



MTP 41

PHA 48

Phantom adapter for MTP40S



MTP 40S

MTB 40S



PLUG-ON TRANSMITTERS

Especially designed for professional wireless microphone applications with a very rugged mechanical construction, up to 232 MHz bandwidth and a great input range of 80 dB. Very easy and quick to use thanks to OLED display. MTB40S has a dedicated audio transformer that assures best quality and noise immunity.

BODYPACK TRANSMITTERS

Especially designed for professional wireless microphone applications with a very rugged mechanical construction, up to 232 MHz bandwidth and a great input range of 80 dB. Very easy and quick to use thanks to OLED display, 1 joggle selector for menu selection and dedicated buttons for quick setup of desired gain and channel.

They benefit from the latest Wisycom RF technology along with enhanced robustness against noise and inter-modulation (available also with the RF circulator option).

mrk 960

precise

2GFlops 40 bit floating point Shark DSP (digital audio processor)
for unbeatable audio quality

agile

The great flexibility to work in an extended
switching-window up to 370 MHz

FLEXIBLE

A fully digital COMPANDER, to interoperate smoothly
with past and future noise reduction systems

FAST

The lowest audio latency on a hybrid system: 0.390 msec!

INTUITIVE

Very quick and easy to use, with "dedicated function" buttons,
rotary selectors, yellow OLED displays and level bars

Wireless-Microphor



MRK 960 DUAL TRUE DIVERSITY

The system offers exceptional selectivity and inter-modulation immunity for best operating performance of the wireless-microphone system even in the presence of DVB-T transmitter's signals. MRK 960 system is already set up for the exclusive PTT function, recently developed by Wisycom and now widely appreciated in the broadcast world.

It's able to work directly with the new wireless microphones provided with built-in telemetry (either body-pack or hand-held transmitters) and Push-To-Talk button: simply pushing this button, the presenter causes the remote switching of the receiver's output-line, from the "main line" to the additional "intercom line", in order to be able to talk "off-air" directly with the technical team (optionally a stuttering tone is back generated to signal the presenter of the push to talk status)

HIGH-performance

Superb audio quality
and extreme UHF radio-technology

PTT FUNCTION

Pushing remotely a push to talk (PTT)
button on transmitters,
MRK960 drives remotely secondary
audio outputs or GPI commands

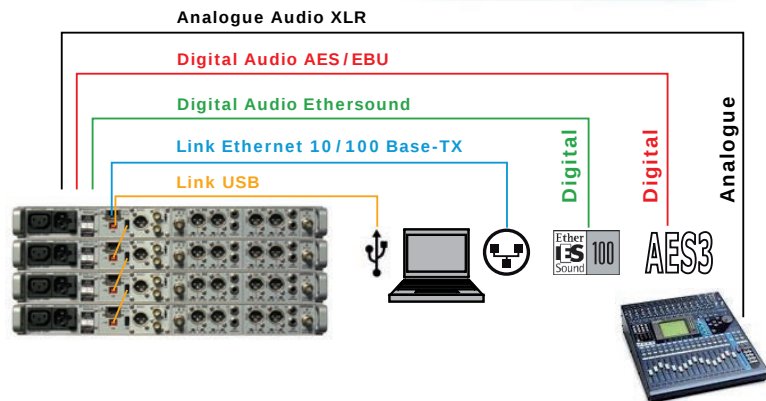
CONNECTIVITY

Analogue - AES3 - Ethersound
audio output.
USB - Ethernet remote monitor
and configuration.

AUDIO
DISTRIBUTION
ETHERSOUND™



AUDIO
DISTRIBUTION
AES/EBU



One RECEIVER SYSTEM



MRK 960 is designed to be:

- “easy & quick to use” thanks to automatic set-up functions (i.e. frequencies, squelch), remote configuration utilities (USB/Ethernet), display with intuitive context menu navigation.
- “extremely flexible”, each of the two receivers works in a 370 MHz bandwidth, more than one rack can be connected together through a simple USB cable to act a multi-channel receiver. Moreover the DSP interface allows the units to work with several digital audio output modes (i.e. AES/EBU, Ethersound), multi-companding compatibilities and other digital features.
- “best in class performance”, thanks to the latest Wisycom technology the unit has extreme RF sensitivity, immunity and superb audio quality.
- “a durable & upgradable investment”, thanks to the very robust design (aluminium housing) and the possibility to upgrade/enhance units features with a simple slot in card (pc-like through the DEXB expansion bus).



IEM

IN EAR MONITOR & IFB

Wideband IEM transmitters utilising DDS technology (direct digital synthesis) technology to generate high quality stereo/mono/intercom or digital carriers.

True diversity wideband receiver with stereo mpX decoding and narrowband mono decoding for high coverage ifb.

MTK952

Dual high power transmitter - Direct Digital Synthesis (DDS)
MONO/STEREO/INTERCOM



- 340 MHz bandwidth
- up 2 Watts output power
- DDS direct digital synthesis
- Analogue/AES3 input
- 40 bit DSP audio
- MULTICOMPANDER

MPR30-IEM

True-diversity
Stereo MPX receiver
bodypack execution



- up 232 MHz bandwidth
- High peak audio power: 200mW
- AA & lithium batteries
- Oled display, infrared & Micro-USB

OB-van

OB-VANS RADIO LINKS

To send OB vehicles' signals directly to studio. It allows reporters to send their live takes directly to the studio via the OB vehicle. We offer all links of the chain, OB-van receiver, transmitter/exciter and power amplifier for longer distances and also a transmitter-combiner for stereo programs.

RTE 25



3W transmitter/exciter (1/2 x 19"/1U rack-frame)

MSR 916



True-diversity receiver (1/2 x 19"/1U rack-frame)

RTC 25



2 x 50W transmitter combiner (1/2 x 19"/2U rack-frame)



MPR30-IFB

High quality
narrowband modulation
bodypack execution



- up 232 MHz bandwidth
- High peak audio power: 200mW
- AA & lithium batteries
- Oled display, infrared & Micro-USB

Wireless Reportage

RK 300 HIGH POWER FULL-DUPLEX REPORTER SYSTEM

Reporter applications, newsgathering
and outdoor sport events.

A full range of products to cover any reporter's needs.



RPU 300

High-power, full-duplex,
reporter portable unit

RPA 25

30W power amplifier (1/2 x 19"/2U rack-frame)



RPU 300E

High-power, full-duplex,
reporter portable unit
shoulder belt antenna





FILM & ENG

RECEIVERS

Video-camera and portable audio receivers.

No technical compromise in spite of its small size:

- Up 232 MHz bandwidth for digital ready operations
- Dual True diversity execution (MCR42)
- DSP audio for high quality (AE53) and multicompanying



MCR42-Exx
2 Top Audio Output:
- Line or Push to Talk

MCR 42S

- Dual True-diversity
ENG receiver "slot-in"
and "stand-alone":
- up 232 MHz bandwidth
 - Analogue & AE53 output
 - DSP digital audio processing
 - MULTICOMPANDER



precise

BlackFin DSP (digital audio processor)
for unbeatable audio quality and AE53 output

agile

The great flexibility to work in an extended
switching-window up to 232 MHz

FLEXIBLE

A fully digital **COMPANDER**, to interoperate
smoothly with past and future noise reduction
systems

INTUITIVE

Very **quick and easy** to use, with "dedicated func-
tion" buttons, rotary selectors, yellow OLED dis-
plays and level bars



MPR30-ENG

True-diversity
ENG receiver
bodypack execution:
- up 232 MHz bandwidth
- AA & lithium batteries
- DSP digital audio processing
- MULTICOMPANDER



SLK 42-IK

"Slot-in" kit for Panasonic/Ikegami



SLK 42-PH

"Slot-in" kit for Grass Valley / Philips



SLK 42-SX

"Slot-in" kit for Sony Camera



BPA42 PTT

Stand alone back panel with
- 2 analogue audio output
- 2 analogue audio output (Push to Talk)
- 2 digital audio output (AE53)
- Power connector (Hirose)



BPA42 HPN

Stand alone back panel with
- 2 analogue audio output
- Stereo Headphone (locking jack 3.5)
- 2 digital audio output (AE53)
- Power connector (Hirose)



MCRMNT

Camera shoe mount
with a male shoe
mount on top



MPRMNT

Camera shoe mount



MFL WIDEBAND OPTICAL LINK

LOW NOISE DESIGN

to allow great coverage when used
to remote receiving antennas

FAST & EASY

thanks to the power/optical meter and automatic
optical losses compensation, almost
any installation is plug & play

REMOTE MONITOR & CONTROL

thanks to a data link on Ethernet 10/100 Base Tx

HIGH INTERFERENCE IMMUNITY

thanks to high IIP3 design and a control and
compensation of gain

EMBEDDED REDUNDANCY

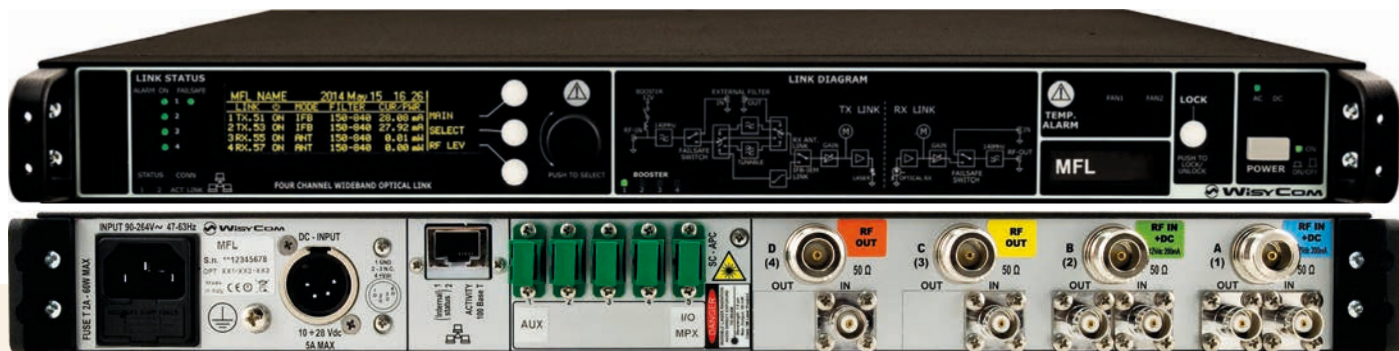
It can route RF through an external filter or to
additional receiver (redundancy) to easily imple-
ment a failsafe configuration that can switch on a
redundant fiber/receiver/transmitter if any fault
is detected

SECURE

the internal digitally tuned filters allow remote
selection the frequency band protect the system
against unwanted interference

RELIABLE

thanks to with a backed-up static RAM to monitor
MFL is able to record internally RF levels and
service data (i.e. laser life time)



MFL quadruple wideband optical link

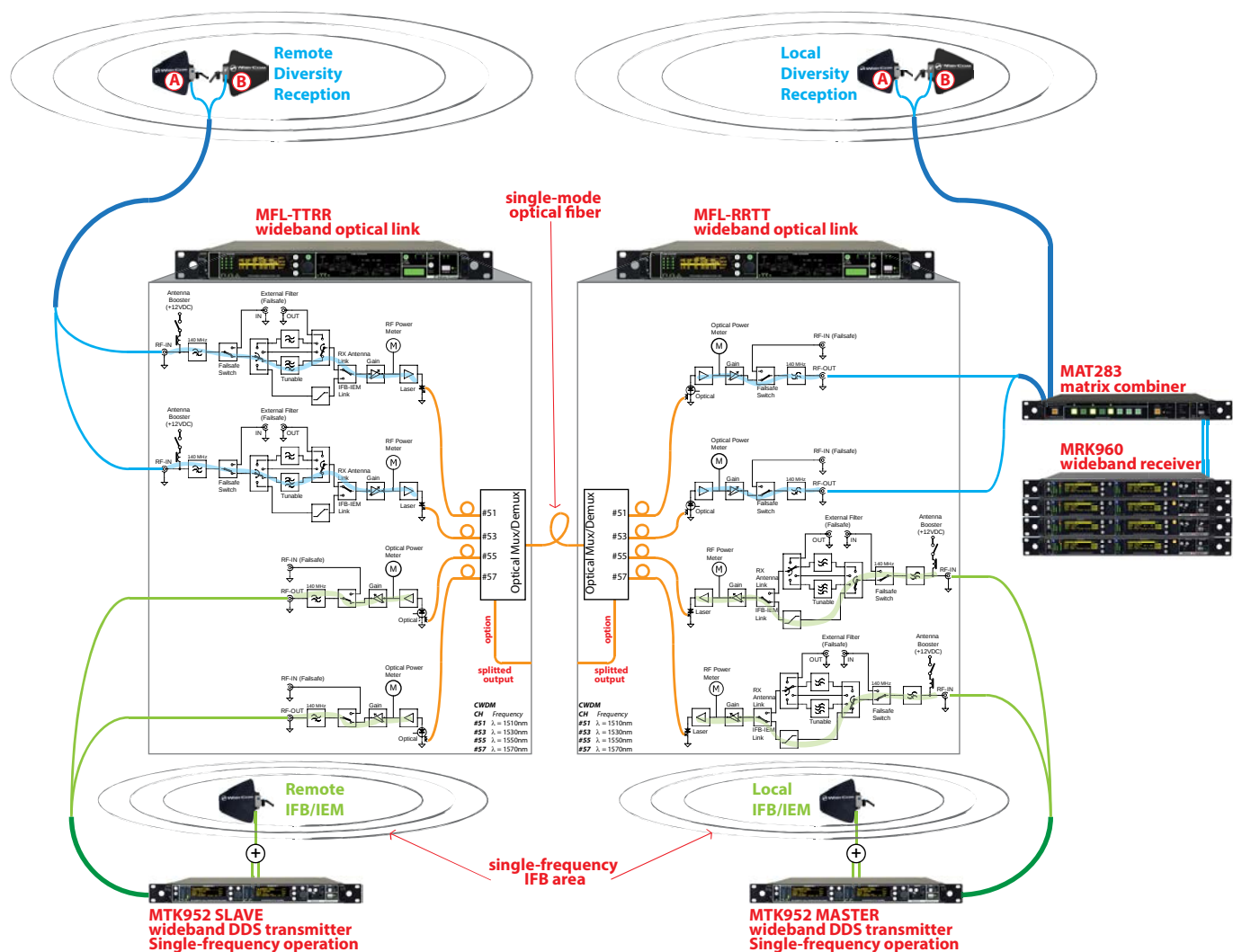
MFL is a system that integrates:

- up to 4 RF channels combined in a single fiber (CWDM)
- digitally tuned filters
- a software configurable front-end: external(failsafe)/"wideband filter"/"tunable filter" as antenna remoting and "IFB" for intercom isofrequency areas
- power/optical meters for monitoring and autocompensation
- Dual power supply and remote monitor

Depending on configuration it can suit many applications. As an example MFL can remote diversity antenna reception and provide 2 IEM channels for a full-duplex operation. The software integration optimises the link automatically thanks to the digitally tuned filters, optical/power meters and the SW configurable front-end, thus MFL is very easy and quick to install: almost plug & play.

The advanced front-end and the use of very low noise laser gives a huge dynamic range to handle the most challenging installations.





Above an example of remote diversity reception using all of 4 plug-in modules available:

- MFL-RRTT in the remote site and MFL-TTRR in local site (i.e. OB van or main studio facility).

The remote antenna reception mode is similar to the one already described before. Again the tunable filter and variable gain allow a complete power control, in this way the fiber always works with the optimised configuration without any risk of saturation!

All RF and optical power can be remotely monitored through Ethernet but also can be recorded with the real -time clock for checking later!

Using MAT283 matrix combiner the remote and the local area can be integrated in a very safe way: areas which are not needed or noisy can be disabled in real time!

Simply setting up the MFL mode from "ANT" (antenna) to "IFB", it selects an internal RF path designed to best modulate IFB signals. At the local site a MTK952M5 in master configuration generates an IFB signal and a reference out that feeds the optical transmitter (in mode "IFB").

On the remote site, the reference signal is received and amplified through a MTK952M5 in slave configuration:

This way we can create a single-frequency IFB area!

The system is able to compensate optical and RF power:

- MFL monitors (through an optical power meter) and compensates automatically the loss of fiber!

accessories

LBN1 Broadband Antenna

LBNA Broadband Antenna with integrated booster

Ruggedized directional broadband antenna. The integrated booster allows you to best compensate cable losses up to 15 dB (adjustable gain in 1 dB step). Easy to setup with a LED display and touch buttons.



AGN Ground Plane Antenna

ABN Ground Plane Antenna with integrated booster



BAW High Power Antenna Booster (22 dB gain)

BAA High Power Antenna Booster (15 dB gain)

Antenna boosters with up to 47 dBm OIP3 for high-end broadband installations. Up to 21 dB gain adjustable in 1 dB step. Easy to setup with an LED display and touch buttons. Ruggedized waterproof housing.



SPL214AW Broadband Splitter

SPL218AW Broadband Splitter

Active broadband antenna splitter to feed 4 or 8 diversity receivers.



CSA221 Passive combiner/splitter (2 x 2 :1)

CSA121 Passive combiner/splitter with booster power supply (2:1 with Pwr)

Rugged wideband combiners capable to stand/supply up to 2 Amp booster current



MAT288 Broadband Radiofrequency Matrix/Combiner

MAT283 Broadband Radiofrequency Matrix/Combiner

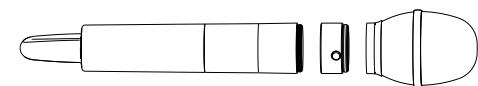
Flexible RF routers that can select/combine up to 8 diversity input. Design to work wideband but able to stand very high interferences.



PTT301 - PTT305 Push to talk (PTT) ring

SRE300 - SRE301 3rd Party head adapter

PTT301 ring fits between microphone body and capsule and enables PTT functions on MIC. It is available in a slim (1 cm height) version, or with a 5 cm body (PTT305) to allow usage of foam windshield. SRE300 allows to mount on MTH300 3rd party Condenser/Dynamic Mic heads.



MCM301 - MCM303 Condenser Microphone Capsule (custom Schoeps)

MCM302 - MCM304 Condenser Microphone Capsule (custom Milab)

MCM305 / MCM306 Condenser Microphone Capsule (Audio Technica / DPA)

Outstanding tonal performances and maximum sound clarity. Ruggedized stainless steel mechanical construction and 2 micro-mesh section for unbeatable pop-suppression. Redundant gold-plated connections.



TECHNICAL DATA

MRK 960 DUAL TRUE DIVERSITY with internal active splitter

Frequency ranges	470-840 MHz Also special ranges: i.e. 821-952 narrowband
Receiving frequencies	40 banks of 60 channel each (user program.)
Switching bandwidth	370 MHz
Nominal/Peak deviation	±40 KHz/±56 KHz
Receiver principle	True Diversity (twin receiver circuits)
IIP3 (Input 3°-order Intercept Point)	+20 dBm
Squelch	signal strength squelch: settable (0-1000 µV) tone squelch: on a subcarrier digitally modulated
Wisyscom Comander (digital DSP)	ENR (high noise reduction)-ENC (high fidelity)
Additional comander (40 bit DSP)	Multicomander emulation with 0,4 ms latency
Signal to noise ratio (SND/N)	115 dBA typ. (analogue out), > 130 dBA (AES3)
Distortion (THD)	0.08% typ. (nominal deviation @ 1 kHz)
Audio Output Level (peak deviation, 1 kHz)	18 dBu
Audio Outputs	2 XLR-3 connector (AF out) 2 XLR-3 connector (PTT option, PTT950)
AES-EBU Digital Audio	XLR-3 and BNC 75 Ohm word clock
Data link	2 USB, data link and receiver chain connections
Monitor output	10/100 Base TX RJ45 ethernet, infrared
Power requirements	1/4" (6.3 mm) stereo jack connector
Housing	90 – 253 V AC, 50/60 Hz
Dimensions	Ruggedized aluminum frame
Weight	19" /1U rack, 35 cm depth Approx 4 kg

MPR30-ENG WIDEBAND CAMERA RECEIVER

Frequency ranges	470-700 MHz (M band) 566-798 MHz (N band) Also special ranges: i.e. 925-952 MHz narrowband
Receiving frequencies	40 banks of 60 channel each (user program.)
Switching bandwidth	Up 232 MHz
Nominal/Peak deviation	±40 KHz/±56 KHz
Receiver principle	True Diversity (twin receiver circuits)
IIP3 (Input 3°-order Intercept Point)	+6 dBm typical
Squelch	signal strength squelch: settable (0-100 µV) tone squelch: on a subcarrier digitally modulated
Wisyscom comander (digital DSP)	ENR (high noise reduction)-ENC (high fidelity)
Additional comander (DSP)	Multicomander emulation with 1.8 ms latency
Signal to noise ratio (SND/N)	> 100 dB typical
Distortion (THD)	0.3% typ. (nominal deviation @ 1 kHz)
Audio Output Level (peak deviation, 1 kHz)	18 dBu (line)
Audio Outputs	• 1 mini XLR-3F (opt. XLR-5F) connector • 1 Jack 3.5 mm with locking
Data/Sync Connection	Infrared/Micro-USB
Housing	Ruggedized aluminum frame
Dimensions	"Slot in" execution: 65 x 22 x 91 mm
Weight	100 g approx (without batteries)

MTP40S/41 BODYPACK TRANSMITTER

RF output power	10/50 (100 mW region dependent for MTP40)
Switchable channels	320 allocated by 40 groups of 60 channels
Frequency range	470-952 MHz (also special exec. narrowband)
Switching Bandwidth	Up 232 MHz depending on specific bandwidth
Modulation	wideband FM, with 50 µs pre-emphasis
Nominal/Peak deviation	±40 KHz/±56 KHz
Dual Noise-Reduction	ENR (high noise reduction)-ENC (high fidelity)
AF bandwidth	40 - 20000 Hz
Signal-to-noise ratio	typ. 115 dB (A)rms with 40kHz deviation
Distortion (THD)	< 0.3 % (0.15 % typ.)
Gain adjustable range	80 dB from -60 dBu to 20 dBu (nominal dev.)
Display	High contrast OLED (96 x 36 pixels)
Power supply	2 AA (1 AA for MTP41) size batteries
Operating time	approx. 10 hrs with high power 50 mW approx. 14 hrs with low power 10 mW
Dimensions	73 mm x 61 mm (56 mm for MTP41) x 17 mm
Weight (without battery)	80 g (75 g for MTP41)

MCR 42 WIDEBAND CAMERA RECEIVER

Frequency ranges	470-678 / 470-700 MHz (L / M band) 566-798 / 590-822 MHz (N / H band) Also special ranges: i.e. 925-952 MHz narrowband
Receiving frequencies	40 banks of 60 channel each (user program.)
Switching bandwidth	Up 232 MHz
Nominal/Peak deviation	±40 KHz/±56 KHz
Receiver principle	True Diversity (twin receiver circuits)
IIP3 (Input 3°-order Intercept Point)	+10 dBm typical
Squelch	signal strength squelch: settable (0-100 µV) tone squelch: on a subcarrier digitally modulated
Wisyscom comander (digital DSP)	ENR (high noise reduction)-ENC (high fidelity)
Additional comander (DSP)	Multicomander emulation with 1.8 ms latency
Signal to noise ratio (SND/N)	110 dBA typ. (analogue out), > 125 dBA (AES3)
Distortion (THD)	0.3% typ. (nominal deviation @ 1 kHz)
Audio Output Level (peak deviation, 1 kHz)	12 dBu
Audio Outputs	2 mini XLR-3F connectors line out (Analogue/AES3) 1 mini XLR-5F command (intercom IFB) 1 Jack 3.5 mm with locking (monitor)
Data link	Infrared Serial
Monitor output	1 Jack 3.5 mm with locking (stand-alone)
Power requirements	1.4 Watts @ 4-18 VDC
Housing	Ruggedized aluminum frame
Dimensions	Slot-in: 68 x 18 x 115 mm (135 mm stand-alone)
Weight	240 g approx

MPR30-IEM WIDEBAND IEM STEREO RECEIVER

Frequency ranges	470-700 MHz (M band) 566-798 MHz (N band) Also special ranges: i.e. 925-952 MHz narrowband
Receiving frequencies	40 banks of 60 channel each (user program.)
Switching bandwidth	Up 232 MHz
Nominal/Peak deviation	±40 KHz/±56 KHz
Receiver principle	True Diversity (twin receiver circuits)
IIP3 (Input 3°-order Intercept Point)	+6 dBm typical
Squelch	signal strength squelch: settable (0-100 µV)
Wisyscom comander	Stereo ENR (sep. attack and release time)
Signal to noise ratio (SND/N)	> 100 dB typical
Distortion (THD)	0.3% typ. (nominal deviation @ 1 kHz)
Audio Output Power	200mW (on 16 Ohm impedance)
Audio Outputs	• 1 Jack 3.5 mm with locking
Data/Sync Connection	Infrared/Micro-USB
Housing	Ruggedized aluminum frame
Dimensions	"Slot in" execution: 65 x 22 x 91 mm
Weight	100 g approx (without batteries)

MTH400 HAND-HELD TRANSMITTER

RF output power	10/50 (100 mW region dependent)
Switchable channels	320 allocated by 40 groups of 60 channels
Frequency range	470-952 MHz (also special exec. narrowband)
Switching Bandwidth	Up 232 MHz depending on specific bandwidth
Modulation	wideband FM, with 50 µs pre-emphasis
Nominal/Peak deviation	±40 KHz/±56 KHz
Dual Noise-Reduction	ENR (high noise reduction)-ENC (high fidelity)
AF bandwidth	40 - 20000 Hz
Signal-to-noise ratio	typ. 115 dB (A)rms with 40kHz deviation
Distortion (THD)	< 0.3 % (0.15 % typ.)
Gain adjustable range	60 dB
Display	High contrast OLED (96 x 36 pixels)
Power supply	2 AA size batteries (Alkaline, recharg. NiMH)
Operating time	approx. 10 hrs with high power 50 mW approx. 14 hrs with low power 10 mW
Dimensions (without head)	183 mm length, 33 mm diameter
Weight (incl. battery)	Approx 300 g



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