

HIGH PERFORMANCE DUAL TRUE DIVERSITY RECEIVER - DIGITAL AUDIO DSP BASED


- ✓ **Wider Oled Display!**
- ✓ **Optimized button layout!**
- ✓ **Simplified software!**

Main Features


- Up to 240 MHz bandwidth in 470/798 MHz range
- **Modular stand-alone or slot-in format**
- 40 groups of 60 frequencies fully user programmable
- Broadcast superlative quality of any audio-signal transposition
- **DSP fully digital audio processing** for broadcast superlative quality and multicompander compatibility
- Infrared interface for programming and transmitter synchronization
- Easy setup and operation thru a OLED display
- **Wisycom exclusive digital sub-carrier telemetry technology** allows:
 - ⇒ remote TX battery monitoring
 - ⇒ advanced tone-squelch operating
 - ⇒ PTT function (An optional back-panel module is available, with the secondary intercom output)
- Exceptional sturdiness and absolute reliability even in very congested environments
- Amazing small size
- Very easy and pleasant use with easy status indication by means of RGB LEDs

GENERAL DESCRIPTION

MCR42 is a camera dual true diversity wireless-microphone receiver system in a modular stand-alone or slot-in configuration (compatible with most camera's slot).

- ⇒ camera "slot-in" receiver (for Ikegamy, Philips, Sony cameras)
- ⇒ camera "stand-alone" very small dual true-diversity receiver, powered by 5 ÷ 18 Vdc external source

All audio processing is managed by a powerful DSP to allow multicompanying, audio enhancement and a digital control data.

Very easy and versatile thanks to its:

- Oled display,
- navigation button controls,
- infrared sinc and programming,
- automatic scan.

TECHNICAL DATA

- Frequency range [1] : MCR42 **N** ⇒ option 470 ÷ 700 MHz
MCR42 **M** ⇒ option 566 ÷ 798 MHz
- Switchable channels : 40 groups of 60 channels fully user progr.
- Switching-window : up 240 MHz [1].
- Frequencies : microprocessor controlled frequency synthesizer circuit, with 25 kHz minimum step. The frequencies is easily PC reprogrammed with the optional UPK 300E Programming Kit.
- Frequency error : < ± 2.5 ppm, in the rated temperature range
- Temperature range : -10 ÷ +55 °C
- Modulation : FM, with 50 µs de-emphasis.
- Nominal deviation : ±40 kHz (Max. operating dev. = ± 60 kHz).
- "A" / "B" antenna inputs : with sturdy connectors.
- Antenna input impedance : 50 ohm sma type (SWR < 1:2; typ. 1:1.4).
- Sensitivity : ⇒ 2 µV (6 dBµV), for SND/N > 58 dB;
⇒ 5 µV (14 dBµV), for SND/N > 98 dB.
in the whole switching-window [2].
- Amplitude response : < 0.5 dB (RF input sig.:6 dBµV ÷ 100 dBµV).
- Co-channel rejection : > 2.5 dB.
- Adjacent chan. selectivity : > 80 dB typical (for ch. spacing ≥ 400 kHz).
- Spurious rec. rejection : > 100 dB.
- IF image rejection : > 90 dB.
- Intermod. rejection : > 76 dB.
- IIP3 : > +10 dBm typical.
- Spurious emissions : < 2 nW (typical = 0.1 pW).
- Noise Reduction system : ENR (Wisycom Extended-NR) , noise optimized
ENC (Wisycom Extended-NC), voice optimized & with reduced pre-emphasis
⇒ Others, compatible with most systems, thru an internal DSP emulation of SA572, SA575 and Rms envelope compander chip set, fully user programmable
- AF bandwidth : 30 Hz ÷ 20 kHz.
- Frequency response : ± 0.5 dB in the 30 Hz ÷ 19 kHz range.
- Distortion : 0.3 % typical.
- SND/D ratio (Analogue) : 110 dB typical [2]
- SND/D ratio (AES3) : >125 dB typical [2]
- POWER LEDs : 1 multicolour RGB LEDs to easy indicate Rx1 & Rx2 power status:
- GREEN/PALE GREEN if "Receivers ON" with external power supply/battery;
- GREEN blinking/PALE GREEN blinking if low power supply/ low battery level
- RED blinking indicates power supply status of transmitter:
• slow blinking, at 25% battery capacity;
• fast blinking, at 12.5% battery capacity.
- RF LEDs : 2 multicolour RGB LEDs to easy indicates Rx1 & Rx2 RF status. Always on in normal operation:
- RED, if both receivers RF level is under squelch level;
- GREEN, if signal above squelch level & antenna A (green) is active;
- BLUE, if signal above squelch level & antenna B (blue) is active;
- YELLOW, if signal above squelch and both antenna are used.
- AUDIO LEDs : 2 multicolour RGB LEDs to easy indicates Rx1 & Rx2 audio status:
- RED, if audio is muted cause of squelch (or tone squelch if active);
- GREEN, if audio is active and tone squelch present;
- BLUE, if audio is active and tone squelch not present.
- Front buttons : simple operation with 4 buttons to quickly monitor and setup the receiver.
One touch function for a frequency scan and sync function.
- Powering : - External = 5 ÷ 18 Vdc (1.5 W max).
- Autonomous. = with optional BCA 42 Battery Module
(5 x IEC-LR6 1.5V size-AA alkaline or rechargeable elements).
- Dimensions : "Slot-in" execution= 68 x 18 x 115 mm, "Stand-alone" exec. = 68 x 18 x 135 mm.
- Weight : 180 g approx.

Analogue Audio Output

- Audio line-output 1 & 2 : electronically balanced on two 3 pin mini-XLR Female connector
- Audio line-output level : Adjustable in a one dB step between: -20 and +6 dBu (nominal) and MAX +12 dBu (peak deviation)
- Audio line-output imped. : ≤ 200 ohm.

Push to Talk (PTT) Audio Output

- PTT line-output 1 & 2 : electronically balanced on a 5 pin mini-XLR Male connector

Digital Audio Output

- Digital line-output 1 & 2 : electronically balanced on 3 pin mini-XLR Male connector
- Digital line-output : AES3 @ 48 kHz

NOTE [1]: Extended limits or other custom ranges are available on request,
if allowed by your country-specific regulation.

NOTE [2]: RMS value, 22 Hz / 22 kHz, unweight.

The MCR 42 receiver complies with ETSI specifications: ETS 300 422.

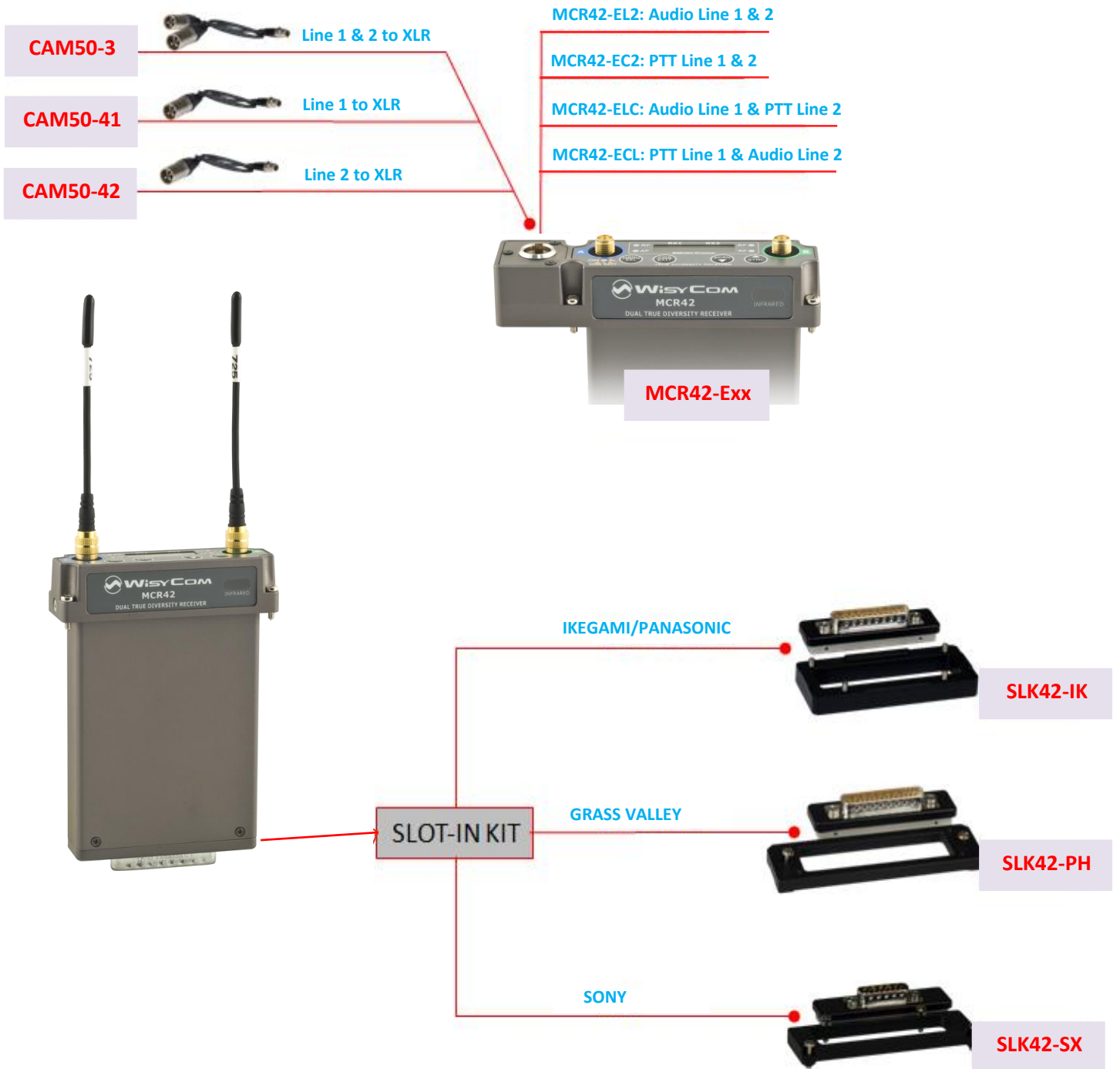
➤ **TOP FEED OPTIONS & SLOT IN - ACCESSORIES**

MCR42 has 4 main audio sources:

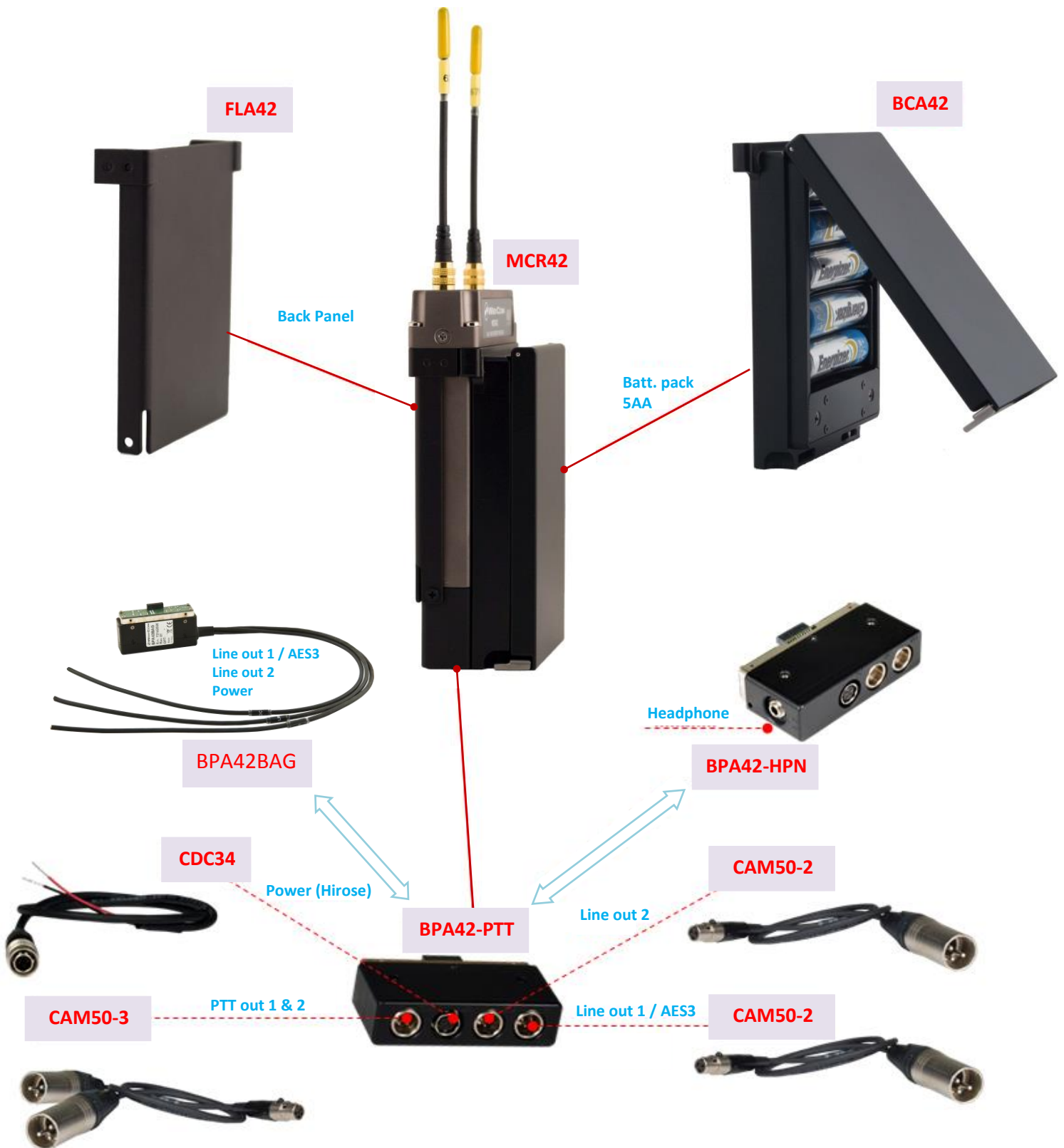
- Audio Line 1&2
- AES3 (audio 1&2, 48kHz 24bit)
- PTT (push to talk) 1&2
- Headphone(left/right)

Top feed can bring on top on a mini-XLR 5M connector two balanced audio called line1 and line2.

MCR42-Exx can then be in factory configure to connect on top (line 1 & 2) the audio source you need.



➤ STAND-ALONE – ACCESSORIES



With the standalone socket BPA42-PTT and BPA42-HPN is available the option OP-BPA42-R22 to have an attenuation of -22dB in Line 1 and Line 2 outputs.
NOTE: With this option, it's not possible to use the AES3 output in the standalone socket and it's not guaranteed the correct functionality of the AES3 output in the top feed.

