WISYCOM™

RPU 500 TxRx

HIGH POWER FULL DUPLEX REPORTER UNIT

RPU500 is a full duplex device especially designed for Outside Broadcast reportage. It features in a very compact format a **1 watt ultra-wideband 170-960 MHz transmitter** and an intercom **receiver**.

MB

Multi-BAND RF

Ultra-wideband VHF & UHF to find your frequency anywhere in the World.

T 1 2 3

4 ways talk-back

4 programmable buttons for talk back with remote audio routing (on additional AUX or throu Ethernet with Ember+)

Bluetooth 5 Low Energy

Monitor & control through USB-C/Bluetooth* (Wisycom Manager software)

REC Embedded Recorder

Audio recording on memory card (SD)

Audio recording on memory card (SD)*

OTHER FEATURES

- High transmitter power output (up to 1W)
- Long battery-lifetime > 5 hours with standard battery pack RRC2040

  i.e. to broadcast recorder interview along with live comment (AUX/MAIN mixed)
- Receiver can operate in 3 modes (selectable by menu):

  - As talkback Mobile (channel spacing 12,5k)

  - As talkback Mobile (channel spacing 50k)

  - As IFB (channel spacing 110k), with the possibility of embedded 3 audio sources on the same carrier*
- 1 MAIN audio input connector XLR balanced with 48V/12V phantom
- 2 audio outputs (waterproof jack 3.5mm): i.e. journalist/guest and 1 AUX audio shared input (waterproof jack 3.5mm)
- Transflective color display with high visibility in the sun
- Ergonomic and compact size

Available soon

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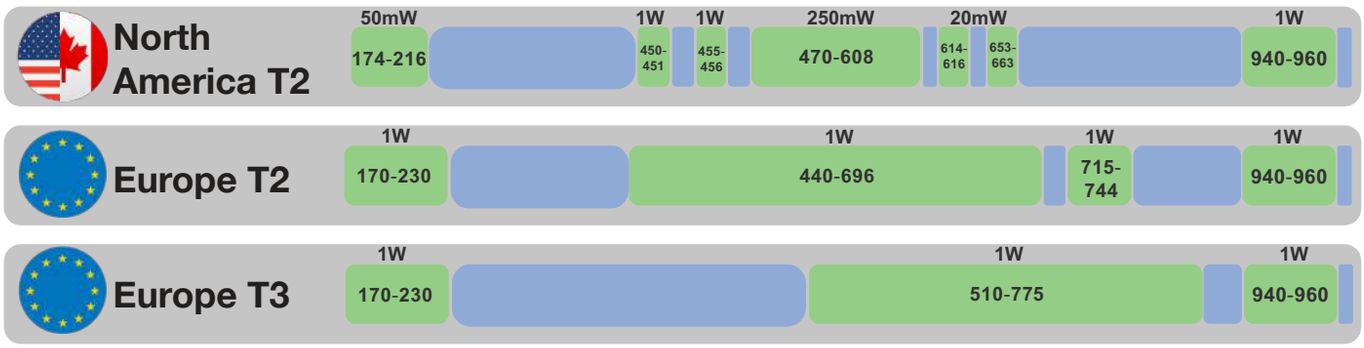
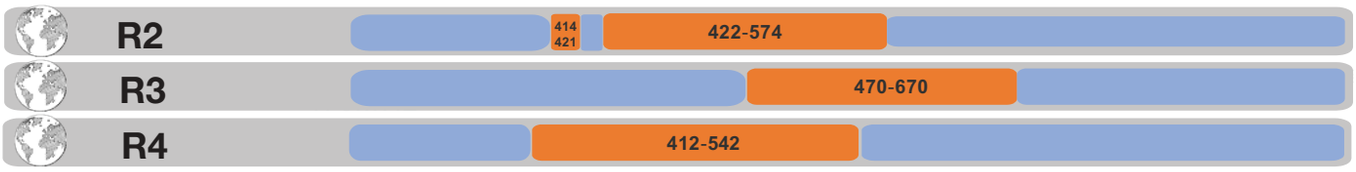
HIGH POWER
FULL DUPLEX
REPORTER UNIT

CONFIGURATIONS

TRANSMITTER RANGE and COUNTRY POWER PROFILE



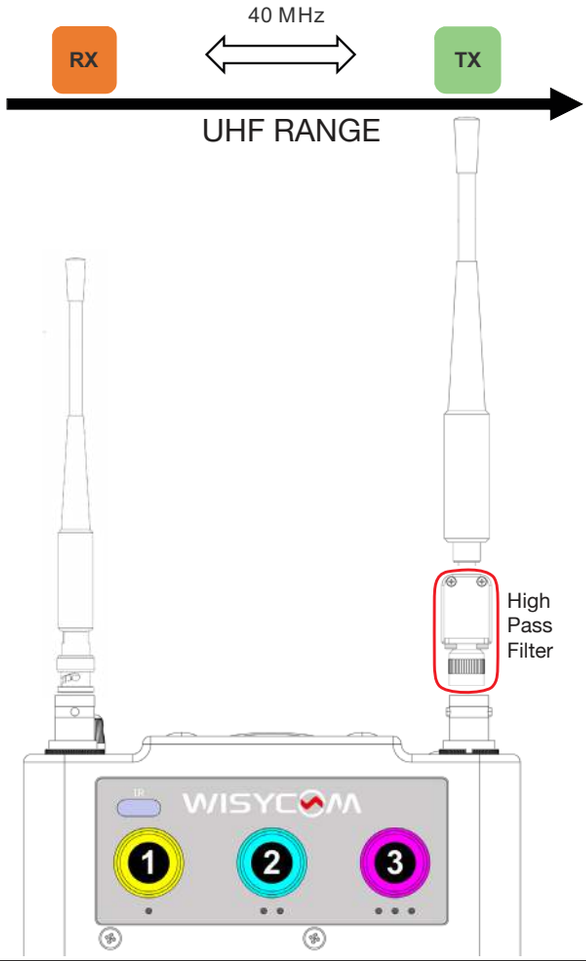
RECEIVER RANGE



VARIANTS: RPU500-<Country>_<Tx Range>-<Rx Range>-<Rx Step>

ex. RPU500-EUX_T2-R2-RS2: Europe 1 Watt, TX: 170-230+440-696+715-744+940-960 MHz, RX: 414-421+422-574 MHz step 6.25kHz
RPU500-EUX_T3-R3: Europe 1 Watt, TX: 170-230+510-775+940-960 MHz, RX: 470-670 MHz standard step 5kHz
RPU500-EUX_T2-R4: Europe 1 Watt, TX: 170-230+440-696+715-744+940-960 MHz, RX: 412-542 MHz step 5kHz

NOTE:
When TX works in UHF, install the filter AFTxxx and set the transmitter's frequency at least 40 MHz above than receivers frequency.



On the below table the selectable range in MHz according to the filter installed on the antenna of transmitter:

RPU500-xxx_T2-R3:

	Filter		
	NOT required	AFT-530	AFT-580
Range TX	170-230	535-696 715-744 940-960	582-696 715-744 940-960
Range RX	470-670	470-493	470-542

RPU500-xxx_T2-R2:

	Filter		
	NOT required	AFT-530	AFT-580
Range TX	170-230	535-696 715-744 940-960	582-696 715-744 940-960
Range RX	414-574	414-493	414-542

RPU500-xxx_T3-R3:

	Filter		
	NOT required	AFT-530	AFT-580
Range TX	170-230	535-775 940-960	582-775 940-960
Range RX	470-670	470-493	470-542

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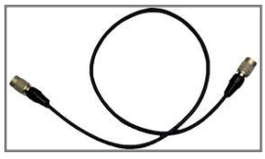
ACCESSORIES & RELATED

Item: PSP15V1A2-H
AC/DC Power Supply with Hirose 4-pin connector
Input: 90 ÷ 264 Vac
Ouput: 15V 1.2mA (18W)Supplied with EU/ UK/USA/AU plug

Item:CAUSBC1
USB Cable 1m
USB B - USB C Male Black
To monitor/control RPU500

Item: BCL500
Belt Clip RPU500



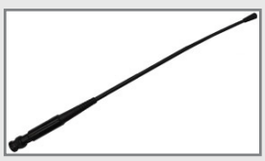
Item: CDC34HM
External power feeding cable,
hirose 4-pin male/hirose 4-pin male(50 cm)

Item: CNANT-TNC
FME-TNC Male black adapter
when the AFT filter is not installed

Item: LBP500
Standard Lithium Battery pack 10.80V / 3.35Ah / 36.20Wh

Item: AFT530/AFT580
High Pass Filter at 530/AFT580 MHz
to install between
transmission antenna (BFME connector)
and RPU500 Full Duplex TNC connector
(other frequency on request)

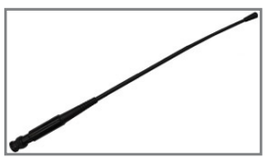
Item: LBC500
Mini Smart Battery Charger with external power supply



Item: AWT500-xxx
1/2 Dipole antenna with TNC connector for RPU500 transmitter VHF range

Item: AWF500-xxx
1/2 Dipole antenna with FME connector for RPU500 transmitter UHF range

Item: CAL1x
Power Cord 2 m. black
CAL11: USA, NEMA 5-15P / IEC 60320 C5,
CAL12: Europe, SCHUKO / IEC 60320 C5
CAL13: UK, UK / IEC 60320 C5



Item: AWB500-Rxxx
1/4 Dipole antenna with BNC connector for RPU500 receiver

Antennas for transmitter:

	Code	Band MHz	T2	T3	
VHF	AWT500-180	170-188	✓	✓	
	AWT500-197	188-206	✓	✓	
	AWT500-213	206-220	✓	✓	
	AWT500-229	220-238	✓	✓	
UHF	AWF500-455	440-470	NO Full Duplex* ✓		
	AWF500-494	470-517	NO Full Duplex* ✓		
	AWF500-540	515-563	✓	✓	AFT-530
	AWF500-590	562-609	✓	✓	AFT-530
	AWF500-625	609-645	✓	✓	AFT-530
	AWF500-670	645-696	✓	✓	AFT-530
	AWF500-720	696-744	✓	✓	AFT-530
	AWF500-770	744-798	✓	✓	AFT-530
	AWF500-950	940-960	✓	✓	AFT-530

AFT-580

*FME/TNC adapter to order separately (code: CNANT-TNC) when filter (AFT-xxx) is not installed

Antennas for receiver:

Code	Band MHz	R2	R3	R4
AWB500-R440	410-470	✓		✓
AWB500-R500	450-550			✓
AWB500-R520	470-574	✓	✓	
AWB500-R620	570-670		✓	

CONFORMITY

CE UKCA IC RSS-210 RSS-123 FC PART 74 PART 15

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TECHNICAL SPECIFICATIONS

TRANSMITTER RF	**Frequency ranges**	from 170 to 960 MHz, depends on the variants (see Configurations) **NOTE: When TX works in UHF, install the filter AFTxxx and set the transmitter's frequency about 40 MHz above than receivers frequency** *ex. TX freq. ≥530 MHz and RX: 470-490 MHz*
	Switchable channels	2400 managed in 40 groups ofr 60 frequencies completely user customizable
	Frequencies step	5 kHz minimum step
	Frequency error	< ± 2.5 ppm, in the rated temperature range
	RF Power	switchable Low / Medium / High, typ. 100mW / 300mW / 1W (*) note: in some countries high power can be disabled, for local norm!
	Antenna connector	TNC type female (BNC for RPU500-FD1 version), 50 ohm
	Modulation	FM mono, wideband or narrowband IFB (SW selectable)
	Nominal deviation	±40 kHz (wideband), ± 25 kHz (narrowband)
	Peak deviation	±56 kHz (wideband), ± 35 kHz (narrowband)
	Spurious emissions	< 2 nW (typical = 0.1 pW)
RECEIVER RF	**Frequency ranges**	from 412 to 670 MHz, depends on the variants (see Configurations)
	Switchable channels	2400 managed in 40 groups ofr 60 frequencies completely user customizable
	Frequency step	5 kHz step (default), other on request options: RS2 = 6.25 kHz, RS3 = 10 kHz, RS4 = 12.5 kHz, RS5 = 20 kHz, RS6 = 25 kHz, RS7 = 125 kHz
	Frequency error	< ± 2.5 ppm, in the rated temperature range
	Antenna connector	BNC type female, 50 ohm
	Modulation	FM intercom and IFB (SW selectable)
	Peak deviation	± 35 kHz (IFB narrowband), ± 8,5 kHz (Talkback 50Khz), ± 4 kHz (Talkback 12,5Khz)
AUDIO	**Noise Reduction system**	**ENS** - Wisycom Extended-Sound Optimized (other on request)
	AF bandwidth for TX	SW switchable: 50 Hz ÷ 20 KHz (1dB) (**ENS-Wideband**) 50 Hz ÷ 15 KHz (1dB) (**ENS-Narrowband**)
	AF bandwidth for RX	SW switchable (other on request): - **NB**: 40 Hz÷15 KHz (-1dB), **IFB Narrowband** 110KHz channel spacing, compatible with MTK982/MTK952A (set Receiver RPU500 NB) & MTP60/61 (ENS-NB compander) - **ENS-50K**: 300 Hz ÷ 6 KHz (-1dB), **Talkback 50Khz** channel spacing, compatible with MTK982/MTK952A (set Receiver RPU500 50K) - **ENS-12K5**: 300 Hz ÷ 3 KHz (-1dB), **Talkback 12,5Khz** channel spacing, compatible with MTK982/MTK952A (set Receiver RPU500 12K5) - **COM-12K5**: 300 Hz ÷ 3 KHz (-1dB), **Talkback 12,5Khz** channel spacing, compatible with Communication TX (no compander, 750 µs de-emphasis) as Motorola CDM1250™
	Audio connectors	1 x XLR3-F type (MIC/Line level) for audio input 1 x Jack 3.5mm for AUX audio input/output (sw selectable) 1 x Jack 3.5mm for audio output
OTHERS	**Managing interface**	USB C, Bluetooth 5(*)
	Command buttons & signaling	Pgm, Talkback 1, Talkback 2, Talkback 3
	Display	Transflective color display with high visibility in the sun
	Power supply	standard battery pack RRC2040 External = 10 ÷ 18 Vdc (10W max) with Hirose 4-pin connector
	Power consumption	TRANSMITTER: 440mA @12V / 5.28W in VHF range 450 ÷ 530 mA @12V in UHF range depending of the frequency and temperature (display off, 1 Watt) RECEIVER: 70 mA @12V / 0.84W
	Battery life	> 5h (power profile & IIP3 trade off) with Lithium RRC2040
	Temperature range	-10 ÷ +55 °C
	Dimensions	114mm x 118mm x 55mm (H x W x D) with beltclip
	Weight	800g (battery included)

(*)Bluetooth interface disabled for Mexico, Japan and South Korea.

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