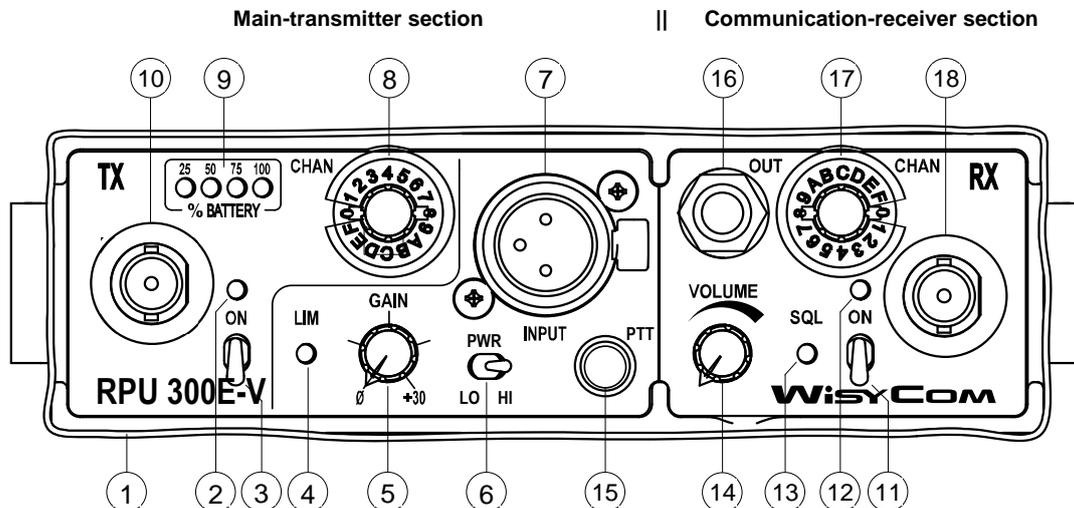


## HIGH-POWER, REPORTAGE WIRELESS-MICROPHONE SYSTEM RPU300E - FULL-DUPLEX PORTABLE TRANSCIVER

■ VHF Main-transmitter - ■ UHF Communications-receiver



1) SOFT BAG

### VHF MAIN-TRANSMITTER SECTION:

- 2) LED INDICATION: TRANSMITTER-ON / LOW-POWER OPERATION (green LED)  
⇒ The LED is on when the transmitter is on.  
⇒ The LED is blinking when the transmitter operates in "low-power".
- 3) SWITCH: TRANSMITTER **On / Off**
- 4) LED INDICATION: LIMITER-ON STATUS (yellow LED)  
The LED is on when the AF input signal exceeds the level suitable for the maximum modulation ( $\pm 55$  kHz).
- 5) ADJUSTMENT: AUDIO INPUT SENSITIVITY  
With switch (20) in **Line** position, the full counter-clockwise position corresponds to 0 dBu AF input level.
- 6) SWITCH: TRANSMITTER POWER **Low / High**  
When the transmitter is switched to "low power", the green LED (2) is blinking.
- 7) CONNECTOR: AUDIO INPUT (XLR3-F type)  
The audio input is transformer balanced and floating. (• pin 1 = ground; • pin 2 = AF-a; • pin 3 = AF-b).
- 8) SELECTOR: TRANSMITTER CHANNELS (with back-light)
- 9) LED-BARGRAPH: BATTERY RESIDUAL LIFETIME ( 25% - 50% - 75% - 100% )  
Note: the "25% LED" starts blinking when the residual lifetime goes under 12%.  
The battery-lifetime measuring circuit is being pre-set on the correct indication, according to the battery type, by the battery-pack inserted.
- 10) CONNECTOR: ANTENNA cable (BNC type)

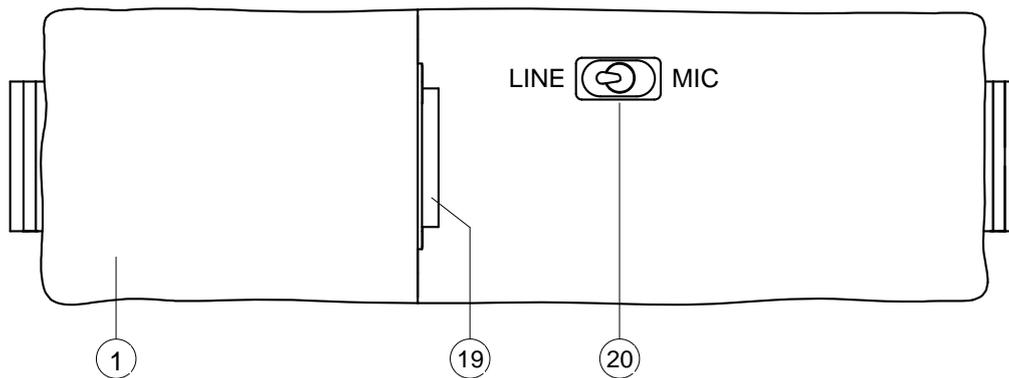
### UHF COMMUNICATION-RECEIVER SECTION:

- 11) SWITCH: RECEIVER **On / Off**
- 12) LED INDICATION: RECEIVER-ON (green LED)
- 13) LED INDICATION: OPEN SQUELCH  
When the LED is on, the receiver AF signal is fed on the output connector.
- 14) ADJUSTMENT: RECEIVER VOLUME
- 15) PUSH-BUTTON: *if remote control option installed*  
Pushing the button, the audio output of the relevant receiver is switched from the "line output connector" to the "operator output connector". During this state, an acknowledgment tone is superposed to the modulation of the communications transmitter to confirm the correct operation.
- 16) CONNECTOR: AUDIO OUTPUT (standard 6.3 mm, 1/4", stereo-jack connector, mono wired)
- 17) SELECTOR: RECEIVER CHANNELS (with back-light)
- 18) CONNECTOR: ANTENNA (BNC type)



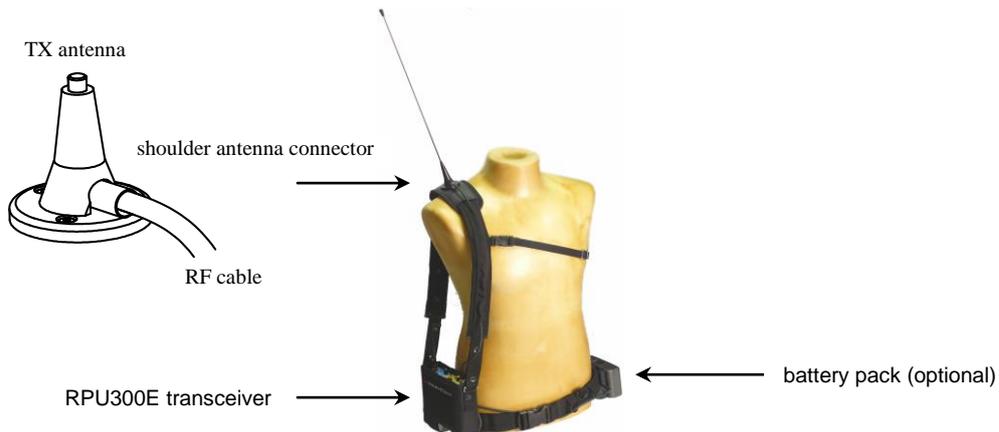
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Bottom view



- 19) CONNECTOR: DC power supply (XLR-4 male type), fuse protected T1.8A  
 • pin 1 = ground ; • pin 2 + 3 = nc ; • pin 4 = +Vdc ( 9+16v )
- 20) SWITCH: AUDIO INPUT LEVEL (*Line / Micro*).

**EMPLOYMENT EXAMPLE:**



**STANDARD ACCESSORIES:**

- AWT 300-EV - VHF whip antenna, tuned over the transmitting range (for TX-section).  
 AWT 300-EU - UHF whip antenna, tuned over the transmitting range (for TX-section) (*on request*).  
 AWB300 - UHF miniflex antenna with BNC connector, pretuned (for RX section).

**OPTIONAL ACCESSORIES:**

- AMB 00 - UHF magnetic-base antenna, pretuned for RX section  
 AMT 00-V - VHF magnetic-base antenna, pretuned for TX section  
 CDE 150 - External 12 Vdc feeding adapter (150 cm cable)  
 PTT 300 - Intercom-operating reporter PTT push-button (It needs ITC300 in the stationary Unit)  
 UPK 100 - Working frequencies user programming kit (interface + software)



## RPU 300E-V - TECHNICAL SPECIFICATIONS

### ■ VHF MAIN TRANSMITTER SECTION:

- Switchable channels : 16, preset in the 170 ÷ 260 MHz range [1].
- Switching window : 10 MHz.
- Frequencies : microprocessor controlled PLL frequency synthesizer circuit, with 25 kHz minimum step.  
They are easily user-reprogrammable by DOS-PC and optional "UPK 100 Programming kit".
- RF output power : switchable between 3 W ( $\pm 0.5$  dB) / 300 mW ( $\pm 1$  dB).
- Spurious emissions :  $< -70$  dBc ( $< 250$  nW).
- Antenna connector : BNC type • Output impedance = 50 ohm.
- Modulation : FM, with 50  $\mu$ s pre-emphasis • Nominal deviation =  $\pm 40$  kHz (Peak deviation =  $\pm 55$  kHz).
- Audio input : transformer balanced, floating (XLR3-F connector).
- Audio input level : **Micro / Line** switchable, and adjustable (for nominal deviation) between:  
  - $\Rightarrow$  **Micro** =  $-60 \div -25$  dBu (0.77 ÷ 43 mVrms) • Input impedance =  $> 6$  kohm
  - $\Rightarrow$  **Line** =  $-25 \div +10$  dBu (43 ÷ 2450 mVrms) • Input impedance =  $> 7$  kohm.
- Peak-limiter : automatic, with dynamic range  $> 20$  dB over the level set for the nominal deviation.
- NR system : compander circuits (internally excludable) pre-set to:  
ENR (Wisycom Extended-NR, with independent Attack- and Recovery-time).
- AF bandwidth : 30 Hz ÷ 20 kHz.
- Frequency response :  $\pm 0.5$  dB ( $\pm 0.25$  dB typ.) in the 40 Hz ÷ 20 kHz range.
- Distortion :  $< 0.3$  % (0.15 % typ.).
- SND/N ratio :  $\Rightarrow$  NR system excluded =  $> 70$  dB (74 dB typ.)  
  - $\Rightarrow$  NR system included =  $> 100$  dB (110 dB typ.)
referred to the peak deviation, and measured: 22 Hz/22 kHz, RMS, unweighted.
- LED indications :  $\Rightarrow$  transmitter On (green LED is on)  
  - $\Rightarrow$  low-power TX (green LED blinks)
  - $\Rightarrow$  limiter-on status (yellow LED is on)
  - $\Rightarrow$  battery lifetime (4-step bar-graph: **100% - 75% - 50% - 25%** residual lifetime)  
When the battery lifetime goes under 12%, the 25% LED blinks.

### ■ UHF COMMUNICATION RECEIVER SECTION:

- Switchable channels : 16, preset in the 400 ÷ 520 MHz range [1].
- Switching-window :  $> 5$  MHz (others on request).
- Frequencies : with microprocessor controlled PLL frequency synthesizer circuit.  
They are easily user-reprogrammable by PC and optional "UPK 100 Programming kit".
- Channel- raster : 25, 20 or 12.5 kHz [1].
- Antenna connector : BNC type • Input impedance = 50 ohm.
- Modulation : FM • (peak deviation =  $\pm 4.5$ ,  $\pm 3.6$  or  $\pm 2.3$  kHz, depending on the channel-spacing).
- De-emphasis : 750  $\mu$ s (internally excludable). Default pre-setting = excluded de-emphasis.
- RX sensitivity :  $< 0.3$   $\mu$ V, for SND/N = 20 dB (excluded de-emphasis, included NR system, CCITT measured).
- Adjacent ch. selectivity :  $> 76$  dB (measured according to ETS 300 086 norms).
- Intermod. rejection :  $> 72$  dB • IIP3 (Input 3<sup>o</sup>-order Intercept Point) = +2 dBm.
- Co-channel rejection :  $> -2$  dB. • Desensitisation =  $> 83$  dB.
- Amplitude characterist. :  $< 0.5$  dB ( $+6 \div +110$  dB $\mu$ V).
- Spurious emissions :  $< 0.2$  nW.
- AF output level : max. 3.8 Vrms, with external volume control • AF output impedance = 10 ohm.
- AF output connector : 1/4" (6.3 mm) standard stereo-jack connector (mono wired).
- NR system : NR (Wisycom-NR) compander circuit (internally excludable). Default pre-setting = included NR system.
- AF bandwidth : 250 Hz ÷ 4 kHz ( $-3$  dB) @ 25 kHz channel-raster..
- Distortion :  $< 3$  % (CCITT measured).
- SND/N ratio :  $\Rightarrow > 50$  dB (54 dB typ.), de-emphasis included, NR system excluded  
  - $\Rightarrow > 80$  dB (90 dB typ.), de-emphasis excluded, NR system included
referred to the peak modulation, CCITT measured @ 25 kHz channel-raster.
- Squelch : internally adjustable (or excludable). Default pre-setting = 0.5  $\mu$ V.
- LED indication :  $\Rightarrow$  receiver On (green LED is on).  
  - $\Rightarrow$  open squelch (yellow LED is on).

### ■ COMMON SPECIFICATIONS:

- Frequency error :  $< \pm 2$  ppm, in the rated temperature range.
- Temperature range :  $-10 \div +55$  °C.
- Powering : optional external feeding pack (9 ÷ 16 Vdc / 9W max., negative ground)
- Battery lifetime : the battery lifetime depends very much on the battery quality and power
- Dimensions :  $\Rightarrow 183 \times 59 \times 183$  mm, only transceiver unit.
- Weight :  $\Rightarrow 1.3$  Kg, only transceiver unit.

**NOTE [1]:** Or according to local regulations.

