

WIRELESS REPORTAGE SYSTEMS

RPU300E-VU

HIGH POWER, FULL DUPLEX REPORTER PORTABLE UNIT

Main Features

- ⇒ Main channel TX(broadband):
 - 16 switchable frequencies in either of following ranges:
 - VHF (170 ÷ 260 MHz) for *RPU 300E-VU*
- ⇒ Talk-back channel RX (narrowband):
 - 16 switchable frequencies in following range:
 - UHF (400 ÷ 520 MHz)
- ⇒ Easy PC frequency-reprogramming by the user (in the pre-set switching-window).
- ⇒ Rapid factory frequency re-allocation (in the whole working range).
- ⇒ Exceptional compact size.
- ⇒ Very easy and friendly to operate.
- ⇒ High transmitter power output.
- ⇒ Long battery-lifetime, its precise measuring and also remote indication.
- ⇒ Wisycom exclusive digital sub-carrier technology prevent any degrading of the modulation quality or reduction of the audio bandwidth for the features:
 - remote TX battery monitoring
 - tone-squelch(or "intercom" PTT) operating.
- ⇒ Exceptional sturdiness and absolute reliability.
- ⇒ The most advanced RF and AF technologies assures the maximum connecting security even with weak and interferred signals.
- ⇒ Standard power supply thru camera legacy XLR 4-F connector



General Description

RPU300E is powerful and lite full-duplex portable units, especially designed for reporter applications: a high quality audio broadcast transmitter together with a tough ifb (return channel) receiver!

The units comes with a comfortable shoulder belt that integrates also the optimized ¼ wave Tx antenna: all for a lite weight of around 1.6kg!



RPU300E along with the companion:

- *CST910 D base receiver*
- *MSR918D base receiver*
- *Antennas*
- *Power supply*

Can come in a lite and robust fly case for an easy transportation!



RPU 300-VU -TECHNICAL SPECIFICATIONS

VHF MAIN TRANSMITTER SECTION:

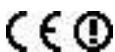
- Switchable channels : 16, preset in the 170 ÷ 260 MHz range [1].
- Switching window : 10 MHz.
- Frequencies : microprocessor controlled PLL frequency synthesizer circuit, with 25 kHz minimum step. They are easily user-reprogrammable by DOS-PC and optional "UPK 32 Programming kit".
- RF output power : switchable between 3 W (± 0.5 dB) / 300 mW (± 1 dB).
- Spurious emissions : < -70 dBc (< 250 nW).
- Antenna connector : TNC type, output impedance = 50 ohm.
- Modulation : FM, with 50 μ s pre-emphasis • Nominal deviation = ± 40 kHz (Peak deviation = ± 55 kHz).
- Audio input : transformer balanced, floating (XLR3-F connector).
- Audio input level : Micro / Line switchable, and adjustable (for nominal deviation) between:
 - ⇒ Micro = $-60 \div -25$ dBu (0.77 ÷ 43 mVrms) • Input impedance = > 6 kohm
 - ⇒ 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 : ± 0.5 dB (± 0.25 dB typ.) in the 40 Hz ÷ 20 kHz range.
- Distortion : < 0.3 % (0.15 % typ.).
- SND/N ratio :
 - ⇒ NR system excluded = > 70 dB (74 dB typ.)
 - ⇒ NR system included = > 100 dB (110 dB typ.)

referred to the peak deviation, and measured: 22 Hz/22 kHz, RMS, unweighted.
- LED indications :
 - ⇒ transmitter On (green LED is on)
 - ⇒ low-power TX (green LED blinks)
 - ⇒ limiter-on status (yellow LED is on)
 - ⇒ 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 32 Programming kit".
- Channel- raster : 25, 20 or 12.5 kHz [1].
- Antenna connector : BNC type • Input impedance = 50 ohm.
- Modulation : FM • (peak deviation = ± 4.5 , ± 3.6 or ± 2.3 kHz, depending on the channel-spacing).
- De-emphasis : 750 μ s (internally excludable). Default pre-setting = excluded de-emphasis.
- RX sensitivity : < 0.3 μ 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^o-order Intercept Point) = $+2$ dBm.
- Co-channel rejection : > -2 dB. • Desensitisation = > 83 dB.
- Amplitude characterist. : < 0.5 dB ($+6 \div +110$ dB μ 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 : $\frac{1}{4}$ " (6.3 mm) standard stereo-jack connector (mono wired).
- NR system : NR (Wisycom-NR) compander circuit (internally excludable). Default pre-setting:NR system.
- AF bandwidth : 250 Hz ÷ 4 kHz (-3 dB) @ 25 kHz channel-raster..
- Distortion : < 3 % (CCITT measured).
- SND/N ratio :
 - ⇒ > 50 dB (54 dB typ.), de-emphasis included, NR system excluded
 - ⇒ > 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 μ V.
- LED indication :
 - ⇒ receiver On (green LED is on).
 - ⇒ open squelch (yellow LED is on).



Subject to change without notice