iCon+

Radio Remote Control Unit

iCon+ is a radio control unit for controlling radio communication systems operated by air traffic controllers and radio communication operators. The control unit hardware architecture, which is neural network, is based on a Nvidia AI computer and illustrates the modern graphic user interface software. The iCon+ is able to operate with various radio communication devices from manufacturers via analog and VOIP interface.

Features :

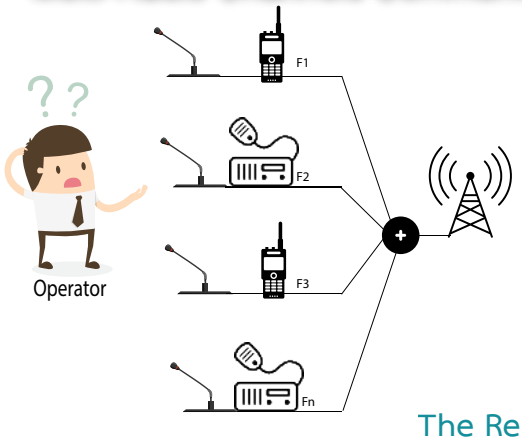
- Fully complied with EUROCAE ED-137 VoIP
- EUROCAE SNMP radio control command for ATC radio
- Proprietary SNMP MIB file support
- Radio control function : frequency, RF power, Squelch level, Modulation level
- Radio parameter display : Frequency, TX power, Go/ NoGo, Tx/Rx, VoIP, RSSI
- 10 simultaneously radio channel controlled up to 32 SIP URIs
- Balance 4W E&M connection for analog non-IP radio
- Radio inactive to active activation
- Dark mode graphic user interface
- Nvidia TX2 computer hardware
- Linux operating systems
- 3 types of user login with separated password protection
- Fan less passive cooling
- IPS LCD with capacitive touch screen 1080x1920 resolution
- Communication event logging
- Local configuration on the front panel touch screen GUI
- Embedded web server for monitor and configuration
- SNMPv3 for RCMS Host interface
- Supported code G.711, G.729
- Individual volume control for a handset, headset, and speaker

Specification

VoIP Standard	EUROCAE ED-137
VoIP Connection	32 URIs
Radio Control Protocol	Eurocae SNMP
Radio Frequency Control	100-500 MHz
Audio Codec	G.711, G.729
LCD Resolution	1920 x 1080 P
LCD Type	IPS 15”
Analog Radio Interface	RJ45 600 Ohm
Analog Line Output	18 Vrms @600 ohm
Analog Line Input	0-10 Vrms @600 ohm
Handset/Desktop Connector	RJ45
Headset Connector	Limo 8 pin and 10 pin
Ethernet Connection	2 x GbE
Internal Audio Power	3 Watt
External Audio Power	3 Watt
Time Reference	Hardware clock, NTP
Storage Memory	512 GB
OS Memory	32 GB
System Memory	8 GB LPDDR4
Hardware Platform	Jetson Xarvier NX
Processor	ARM V8.2 64 bit 6-Core @ 1.9 GHz
GPU	CUDA 384 Core, Tensor 48 Core
Operating Systems	Linux
Mechanical Dimension	260 x 340 x 50 mm

Out of limited for

Multi-Radio Channels Communication at Command Control Center



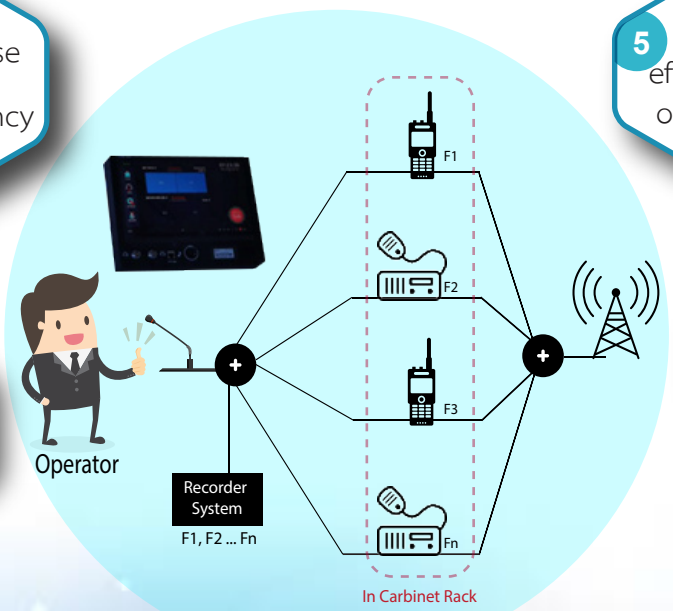
How to handle multi-radio communication systems at a time and efficiently operate the Command Control Center.

The operators face a variety of series of radio equipment in front of and chaotic operation surrounding.

The Remote Control Unit (RCU)

is an optimal solution as follows:

1. increase the efficiency
2. the state-of-the-art design and technology
3. easy to use
4. able to customize
5. efficiently operate
6. low cost
7. high safety
8. Scalable as needs



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