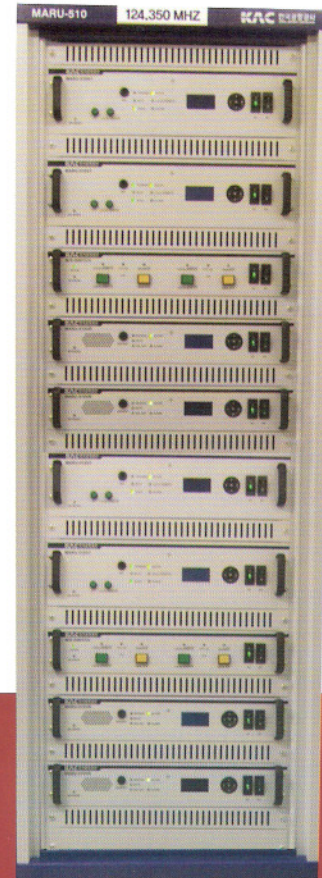


Brief Description

U/VHF TX/RX of KAC made based on integrational modular concept. This means that this system adapted modern digital technology. Also we use to high speed micro processing & integrated circuit device. KAC has many experiences about maintenance field. So KAC know well this system so we made it in 2010. Also, we are leaders in the design and implementation of all NAVAIDS system field and ultramodern technology. Finally this system is fully compliant ICAO Annex 10 & also FAA Order.



Sky MARU 510-U/VHF System

U/VHF

Transmitter & Receiver

User friendly frequency change

By Navi-Keys The increment/dc-crement is dependent of the selected channel spacing. Set-up of the transceiver is also selected with these buttons.

LCD Display

Each Unit shows the operating frequency. A push-button selects different BITE measurements available internally in the receiver and transmitter. In case of an alarm, the cause for the alarm will automatically be shown on the display to ease service.

RS-485 Multidrop Databus

Enable remote control and monitoring of up to 128 units through a single connection. All units individually addressable.

Remote/Local switch

Select between local and remote operation. the output level on the audio line of the receiver part and the input sensitivity on the audio line of the transmitter part is adjusted with frontpanel Navi-Keys

BIT(Built-In Test)

MARU-510 transmitter has the function of BIT(Built-In Test). BIT provides status information of system through continual self-tests while the system is in operation, and it can control in Local or Remote way by monitoring and controlling systems. Also, although there is any fault (defect) in a piece (component) of system, it is available to display alerting information on the front LCD panel.

LED Indicators

AC/DC power availability, Alarm, High SWR, Remote Control, Standby operation, Squelch, Transmit.

LCMS & RCMS

MARU-510 system can check system operational status through LCMS(Local Control and Monitoring System) and control them. Also, through the connection between communication lines and RCMS(Remote Control and Monitoring System), it is available to check and control the system operational status at remote sites away from system. Through the graphical displays on PCs of LCMS and RCMS, it is available to monitor and control them.

U/VHF

Technical Specifications

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GENERAL

Frequency Range	VHF : 117.975 ~ 136.975 MHz UHF : 225 ~ 399.975 MHz
Channel Spacing	25 kHz, 8.33 kHz
Frequency Stability	≤ 1 ppm
BITE Monitoring	VSWR, PSU Voltage alarm, Output power, Module alarm etc.
Power Supply	115/230 VAC 60Hz, 24 VDC Internal Protection against overvoltage, overheat Automatic switchover AC to DC

TRANSMITTER

Output power	5 ~ 50 W
Modulation	A3(Voice), D8PSK(VDL2)
Modulation Level	up to 95%
Data rate	31.5 kbits/s
Adjacent channel power	A3E : < -70 dBc, D8PSK : < -65dBc
Distortion	< 5%
Line input	600Ω
Tx timeout	Adjustable from 0 to 300 sec
VSWR	1.5 : 1 at full power
Keying	Local & Remote
Front panel C&M	Frequency control/display, Modulation rate control/display, VSWR

RECEIVER

Demodulation	A3E(AM-voice), D8PSK(VDL 2)
Sensitivity	A3E : < -107 dBm (1uV) @ m=0.3 at 1 kHz , 12 dB SINAD (ITU-T Weighted) VDL Mode 2 : -98dBm (BER <10 ⁻³ w/o FEC)
IF selectivity	> -6 dB @ ±9 kHz, < -60 dB @ ±25 kHz
Adjacent channel rejection	> 70dB
AGC range	107dBm to +10dBm(Dynamic range : 110dB)
Squelch	Adjustable and switchable form local or remote control VHF : < 1uV UHF : < 1.78uV