

MARR



BSU (Base station Unit)	RSU (remote station)
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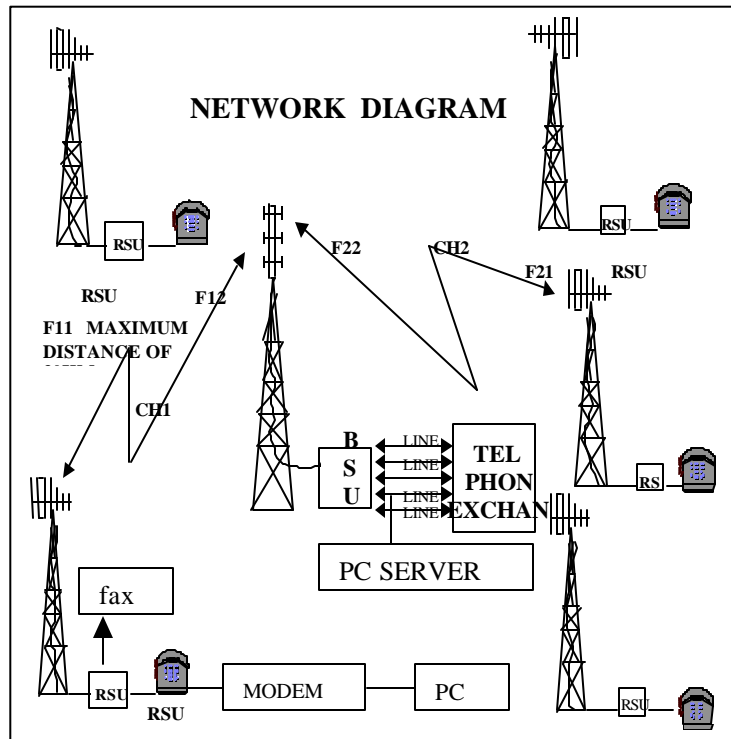
- MARR** consists of a Base Station Unit (BSU) connected to the network through trunk lines, and the remotes are provided in the remote locations. The remotes (RSU) can be as far away as 45 Kms clear line of sight
- Typically 20 locations can share 8 Radio Channels or 4 channels can be shared by 36 channels
- Is an ideal equipment for connecting different location on shared Radio channel basis
 - Equipment Works on VHF/UHF Band.
 - This has been extensively used to provide rural communication links for connecting Rural communities to the PSTN. Equipment is transparent to any signaling/dialing plans and usually is set for CCITT type 5 MFR2 signalling.
 - At BSU an omni directional antenna is used
 - At RSU end a yagi antenna is used.

Features

- Broadcast messages from any RSU through the base station.
- Group call facility from BSU or any RSU.
- Dialing plans & interfaces.
- 230V AC compatible.
- Extension of range through suitable repeaters.
- Pre-defined call duration setting.
- Compatibility with DTMF & Pulse dialing.
- Monitoring of RSU status from BSU station.
- Extension of subscribers up to 120.

Application

- Private networks
- Remote Hilly Areas /Sites where in Laying Cables is a constraint .



System Specifications

No of Radio Channels	4/8
No of Remote Subscribers	20/40/90/120
Frequency Range	VHF / UHF
Tx-Rx separation	25 MHz
Type of Modulation	FM
S/N ratio at 1Khz over a single hop for 10 micro-volt RF signal input	50 db Min

Receiver Specifications

Type	Superhetrodyne
Intermediate frequency	10.7 MHz and 0.455 MHz
Sensitivity	a: 12dB or better SINAD for a level -107dbm at Antenna port. b: S/N ratio of 50dB or better for RF level of -87dbm at Antenna port.
Image Rejection	80dB or better
Selectivity at \pm 25KHz from Rx freq	60dB or better
Squelch	-116 dBm \pm 3 dBm
Hysteresis	2 \pm 1 dBm
LO frequency stability	5 ppm or better
Input Connector	SMA female
Overload point of Receiver	-20 dBm or better

Transmitter Specs

Power at Antenna port	2 Watts (Min), 5Watts (Max)
Freq deviation for 1kHz tone	3.3KHz \pm 0.3 KHz a level of 0dbm at 2W points
Maximum frequency deviation	5KHz peak (Max) of +5dbm at 2W points
Signalling frequency deviation	a. 125/3825 Hz Tone : 1.3 KHz \pm 0.3 KHz (max) b: DTMF Tone : 2.5 KHz \pm 0.6 KHz
Frequency stability of carrier	5 ppm or better
Spurious	25 Microwatts
Protection	Tx shall be protected against infinite VSWR
Cooling of Transmitter	Natural cooling
Output connector@ antenna	Nmale

Mechanical Dimension :

BSU –

Rack Ht - 3 Ft

Antenna – Omni Directional 15 feet

Tower – as required

RSU

(L*B*H) = 320*95*280

