



# Multi Channel Communication System (MCCS)

**MCCS8, Provides 8 channels using Railways quad cable for Emergency communications**

## Overview

The Multi channel communication system MCCS is designed & manufactured exclusively for Indian Railways. This system provides 8 number of voice channels in case of Accidents in Railways. This system uses the existing infrastructure of Railways to provide 8 number of voice links compared to one voice link presently available on the EMC socket. System uses half quad cable running along the Railway tracks. The maximum distance tested between Master unit & Remote unit for providing reliable communication is close to 17 Km in the Indian Railways.



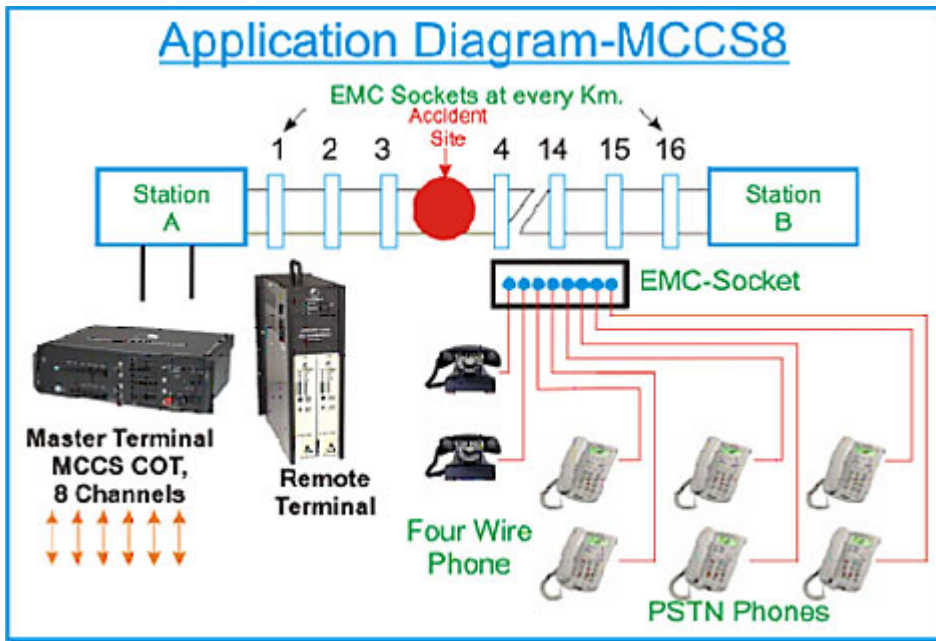
The MCCS system consists of Pre-wired - Master unit kept at the station with the power supply source & 2 wire & 4 wire communication ports connected.

The Remote unit is highly portable with 12V battery and is connected to the EMC socket nearest to the emergency site. The Remote unit comes along with RJ11 sockets to quickly connect telephone instruments, the system can also be hooked with VHF system to cover wider area using mobile handsets.

## Key Features

- » Provides communication over existing .9mm Quad cable
- » Provides 6 number of 2wire circuits & 2 number of 4 wire circuits
- » Master unit & Remote unit both can operate from battery in case of power failure. System can work for 6 hours without power
- » The electronic modules are Fault tolerant & 100% redundancy is provided to make the system highly reliable for Emergencies
- » Master unit is equipped with 220AC mains to 48V DC module, this unit provides power to the system & also provides controlled charging current to the 48V battery. In absence of power failure Battery takes over to power the system. Remote unit is equipped with 220AC mains to 12V DC module, this unit provides power to the system & also provides controlled charging current to the 12V battery
- » Complies with the EMI/EMC specifications CISPR 22 { 1993 } for class B equipment
- » Provides extensive Indications to monitor Health & performance of the system
- » Provides easy to use RJ11 sockets at the Remote unit
- » Highly portable & rugged design for the remote enables it to be used for emergency communications

## Applications



## Specifications

Specifications:		
System Configuration		
	Station unit	Field Unit
Power supply module	AC Mains to 48 DC	AC Mains to 12 DC
For Failure Protection Stand-by card	Yes	Yes
Power supply module for RPC card		Remote Side Unit
For Failure Protection Stand-by card		Yes
Processor card with user interfaces	Yes – For Station Side Unit	Yes – For Remote Side Unit
For Failure Protection Stand-by card	Yes	Yes
User Interfaces	<ul style="list-style-type: none"> <li>• 2 wire POTS interfaces, 4 numbers; CCITT Rec. G - 713</li> <li>• 4 wire interfaces, 2 numbers; CCITT Rec. G - 712</li> </ul>	
Typical Reach	0.9 mm ½ Unloaded Quad cable – 16 Km	

Protection	As per ITU K20, K21	
Dimensions in MM	W x D x H 298 x 176 x 276	W x D x H 370 x 250 x 115
Operating Environment	-15 ~55 degree C, 5%~90%RH	

**Ordering Information:**

**MCCS8: Consisting of station unit & Field unit provides 8 channels using Railways quad cable for Emergency communications.**