

CIRRONET (USA)
2.4GHz
Radio Modem

RADIUS (SWEDEN)
VHF/UHF
Data Radio Modem

ACKSYS (FRANCE)
2.4/5.3/5.7 Ghz
WiFi IEEE 802.11 a/b/g/h

DIGITAL CONTROL (USA)
2.4GHz
RTD Wireless Transmitter

PYROTECH
Industrial Wireless Solutions

PDR-221 (Transparent Wireless Radio Modem)

The PDR-221 is a VHF/UHF transparent wireless radio/modem for point-to-point, point-to-multipoint and peer-to-peer communication.

Features:

- ✓ Non LOS(line of sight) communication.
- ✓ Works on licensed VHF/UHF bands.
- ✓ Data Rate : Upto 19.2 kbps.
- ✓ Selectable transmit power level upto 10W.
- ✓ Receiver sensitivity : -107...-114 dBm for 10⁻⁶ BER.
- ✓ Antenna Interface : BNC female.
- ✓ Security : 128 bit encryption.
- ✓ Forward error correction, Collision avoidance.
- ✓ Interface : RS-232 asynchronous serial
- ✓ Size : 165(H) x 113(W) x 40(D) mm.
- ✓ Operating voltage : 11.5-13.5 VDC nominal.
- ✓ Temperature range : -40°C to +60°C.
- ✓ Housing material : Extruded aluminum, IP 52.
- ✓ Same radio can be configured as master, slave or repeater.



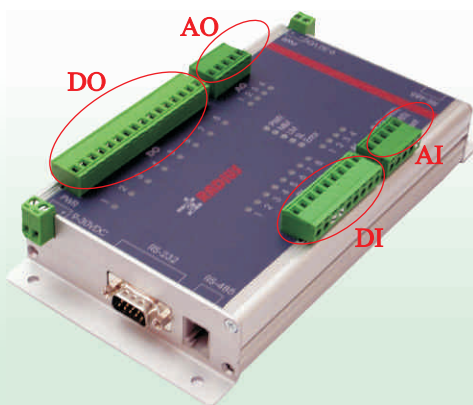
Other Related Products:
PDR 121 : Protocol decoding wireless radio.

RTU (Point-to-Point, Point-to-Multipoint)

The RTU is compact device designed to transfer DI/DO/AI/AO from remote sites to a central control room & vice versa.

Features:

- ✓ Non LOS communication.
- ✓ I/O : 8 DI, 8 DO, 4 AI, 4AO (Upto 512 DI, 512 DO, 256 AI, 256 AO)
- ✓ Radio Frequency Range : VHF 132-174 MHz, UHF 403- 470MHz
- ✓ Data Rate : 2400/4800/9600/19200 bps.
- ✓ I/O Connections : Removable screw terminals
- ✓ Serial Port : RS-232 for radio / RS-485 for expansion
- ✓ Digital output as a communication failure alarm
- ✓ Size : 196(H) x 100(W) x 30(D) mm
- ✓ Operating voltage : 9 to 30 VDC
- ✓ Mounting : Wall or DIN-rail



WLg-ABOARD-N / NP (Wireless Access Point, Bridge and Repeater-WDS)

Access point to build a WiFi network infrastructure, bridge to connect any Ethernet equipments to this network and MODBUS-TCP/IP wireless gateway.



WLg - ABOARD - N/NP

Features :

- ✓ LOS (line of sight) communication
- ✓ License-free 2.4GHz/5.3GHz/5.7GHz frequency.
- ✓ Same radio can be configured as access point, bridge & repeater.
- ✓ CE Marked.
- ✓ Technology : WiFi IEEE 802.11 a/b/g/h & super AG.
- ✓ Data Rate : Up to 108 Mbps (super AG mode)
- ✓ Output power: 100mW (400mW optional).
- ✓ Receiver sensitivity : -92 dBm for IEEE 802.11 a/g and -95 dBm for IEEE 802.11b.
- ✓ Security : WEP, WPA-PSK, WPA2-PSK, IEEE 802.11x (RADIUS)
- ✓ Modulation :OFDM: BPSK, QPSK, 16QAM, 64QAM & DSSS: DBPSK, DQPSK.
- ✓ Channels : 13 channels (b/g modes), 8 channels (a mode), 11 channels (h mode)
- ✓ Web based configuration, SNMP administration.
- ✓ Enclosure Rugged vibration-proof & shock-proof IP66 aluminum enclosure
- ✓ Size : 80(H) x 175(W) x 57(D) mm
- ✓ Operating voltage : Wide range dual power supply +9VDC to +75VDC
- ✓ Temperature Range : -25°C to +70°C
- ✓ Consumption : 7W typical

WL-IDA/S (Wireless MODBUS RTU to MODBUS TCP/IP)

WL-IDA/S gives access to any serial equipments from Windows, Unix & Linux computers connected to your wireless Ethernet TCP/IP network, making it possible to communicate between two distant serial equipments through the network, or directly with a peer to peer connection (AD-HOC mode) or even build a wireless ethernet serial MODBUS to MODBUS-TCP/IP gateway.



WL - IDA/S

Features :

- ✓ LOS(line of sight) communication
- ✓ License-free 2.4GHz frequency
- ✓ Single asynchronous serial port RS232/RS422/RS485 full duplex.
- ✓ Data Rate : Up to 250 Kbps
- ✓ Output Power : +15 dBm
- ✓ Receiver Sensitivity : -84 dBm
- ✓ Security : 4 independent 64/128 bits WEP keys
- ✓ Modulation : CCK, BPSK, QPSK
- ✓ Protection : 15KV ESD protection with HF signal filtering
- ✓ Housing IP30 enclosure, 35 mm DIN rail mounting
- ✓ TCP Client / Server, UDP & MODBUS/TCP support
- ✓ Point to Point (virtual cable) & Multipoint modes
- ✓ Power Supply : 7-60 VDC
- ✓ Temperature Range : -10°C to +60°C
- ✓ Consumption : 3W maximum
- ✓ CE Marked

HopNet 210 (Wireless RS 232)

The HopNet 210 (HN-210) is a versatile, low cost, multi-purpose 2.4 GHz frequency hopping wireless data modem. The HopNet 2.4GHz spread spectrum wireless relay I/O modems are the ideal solution for industrial and commercial monitoring and control applications.



Other Related Products: HN-510, HN-1010, HN-1510, HN-2010, HN-3010.

Features :

- ✓ LOS(line of sight) communication
- ✓ License-free 2.4GHz frequency hopping spread spectrum technology.
- ✓ Exceptional immunity to multipath fading and jamming.
- ✓ Co-location of multiple networks without interference.
- ✓ 460Kbps over the air and 115Kbps I/O data rates.
- ✓ Selectable transmit power levels of 100mW.
- ✓ Receiver sensitivity: -99dBm for 10^{-5} BER.
- ✓ Protocol : Modbus RTU, Transparent
- ✓ Modulation : GFSK
- ✓ Hopping Pattern : 64 (user configurable)
- ✓ RS-232 asynchronous or USB serial interface
- ✓ NEMA 4X weatherproof enclosure and aluminum mounting flange.
- ✓ Size : 35(H) x 79 (W) x 13 (D) mm.
- ✓ Operating voltage: 9VDC, 160mA type, 750mA surge.
- ✓ Temperature Range: -30°C to +70°C (radio enclosure).
- ✓ FCC Certified and CE marked.

HNIO - 241R/A Relay I/O Wireless Modem (Wireless I/O Transfer)

The HNIO modems include frequency hopping spread spectrum radio technology that has been fieldproven to provide reliable, robust wireless communications in harsh RF environments.



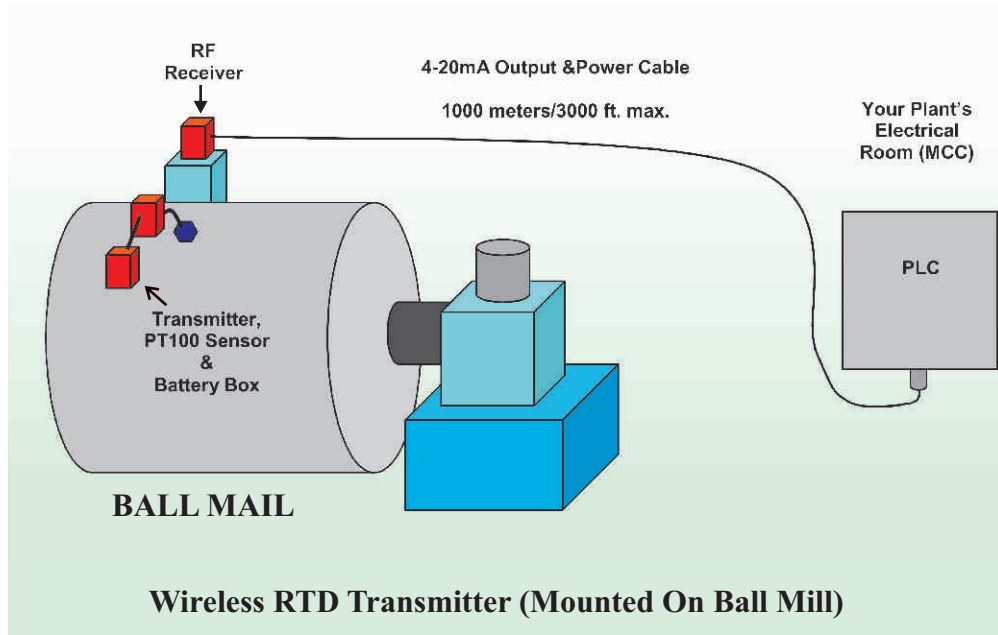
**Other Related Products:
HNIO - 241A**

Features :

- ✓ LOS(line of sight) communication.
- ✓ Licence-free 2.4GHz frequency hopping spread spectrum technology.
- ✓ RF Data rate: 460Kbps.
- ✓ Full bi-directional operation.
- ✓ I/O : 4 DI, 4 DO (HNIO-241R)
- ✓ 2 DI, 2 DO, 2 AI, 2 AO (HNIO-241A)
- ✓ One additional Relay contact for RF link failure alarm.
- ✓ Transmit Power : +8dBm/+18dBm for 10^{-5} BER (software selectable)
- ✓ Receive sensitivity: -93dBm for 10^{-5} BER..
- ✓ Modulation : GFSK.
- ✓ Fully configurable: HNIO -241R/A is fully configurable through DIP switches or an intuitive terminal interface.
- ✓ Reliable performance in high RF noise environments.
- ✓ Size : 138 (H) x 46.5 (W) x 106.2 (D) mm
- ✓ Operating voltage: +9VDC to +30VDC.
- ✓ Operating temperature: -40°C to +70°C.
- ✓ FCC Certified and CE marked.

Mill-Temp (Wireless PT 100 Sensor Temperature Monitoring for Ball Mill)

Mill-Temp is a RF based temperature monitoring system with a 4-20mA output. It consists of a small battery powered RF transmitter that digitally sends temperatures obtained from a standard PT100 platinum resistive sensor mounted in the mill shell or diaphragm. The RF receiver is then mounted nearby the mill and its function is to convert the RF digital temperature information to a standard 4-20mA output.



Features :

- ✓ License free 2.4 GHz Transmitter and Receiver.
- ✓ 5 Year life hi-tech Lithium Ion Battery in the Transmitter unit.
- ✓ Input : RTD or Pt100 platinum resistive sensor.
- ✓ Typical 4-20mA analog output on the receiver
- ✓ Temperature range is 0°C to 250°C with 1% accuracy
- ✓ Easy/Quick to install small Nema 4 magnetically mounted case.
- ✓ Applications : Diaphragm temperature of Ball Mill

GSM/GPRS Modem (Intelligent, Compact, High-Performance and cost-effective)

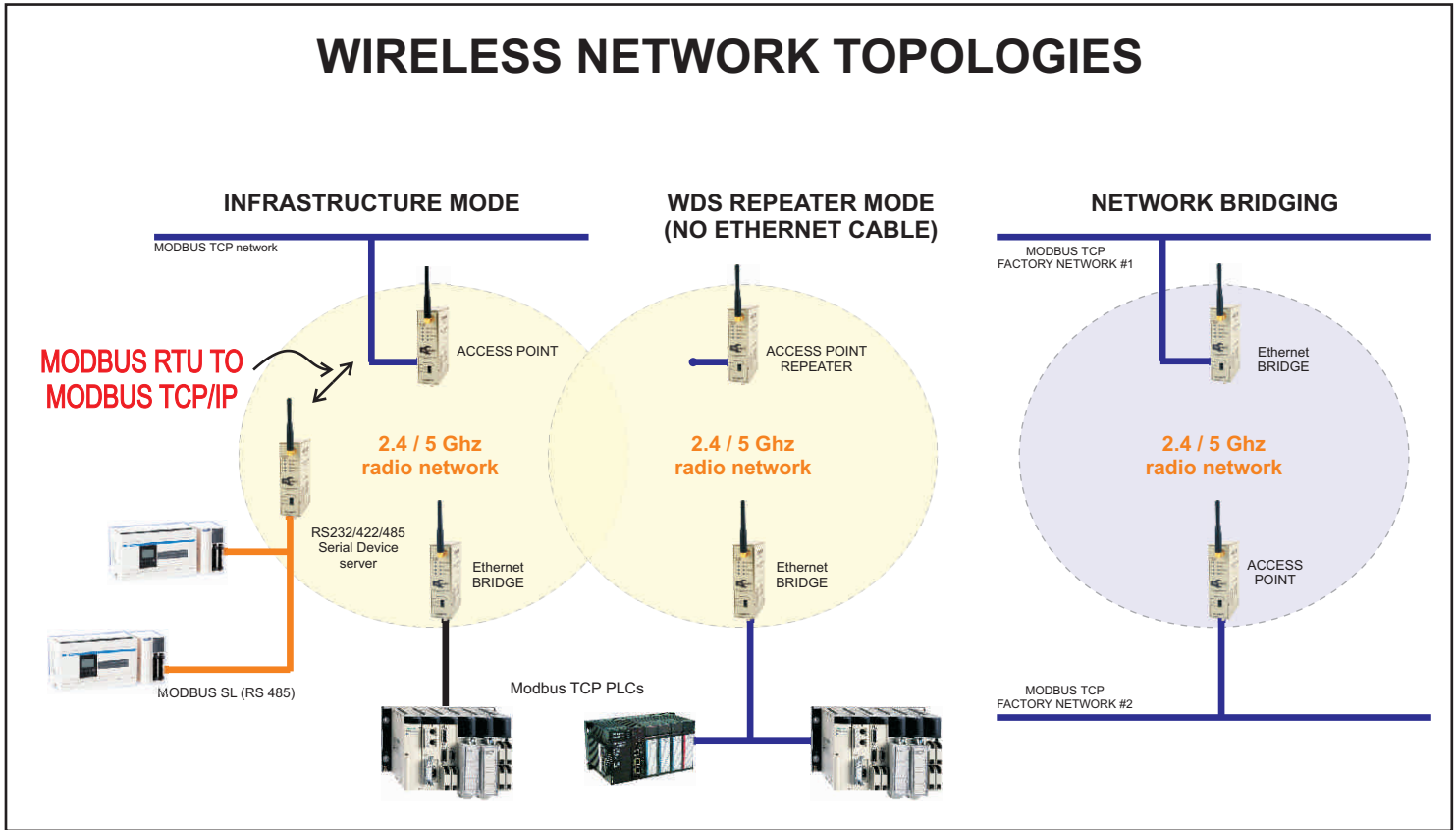
These modems are used for variety of applications, such as remote monitoring and data acquisition, vehicle communication system, traffic control, vending machine, alarm & security system. etc.



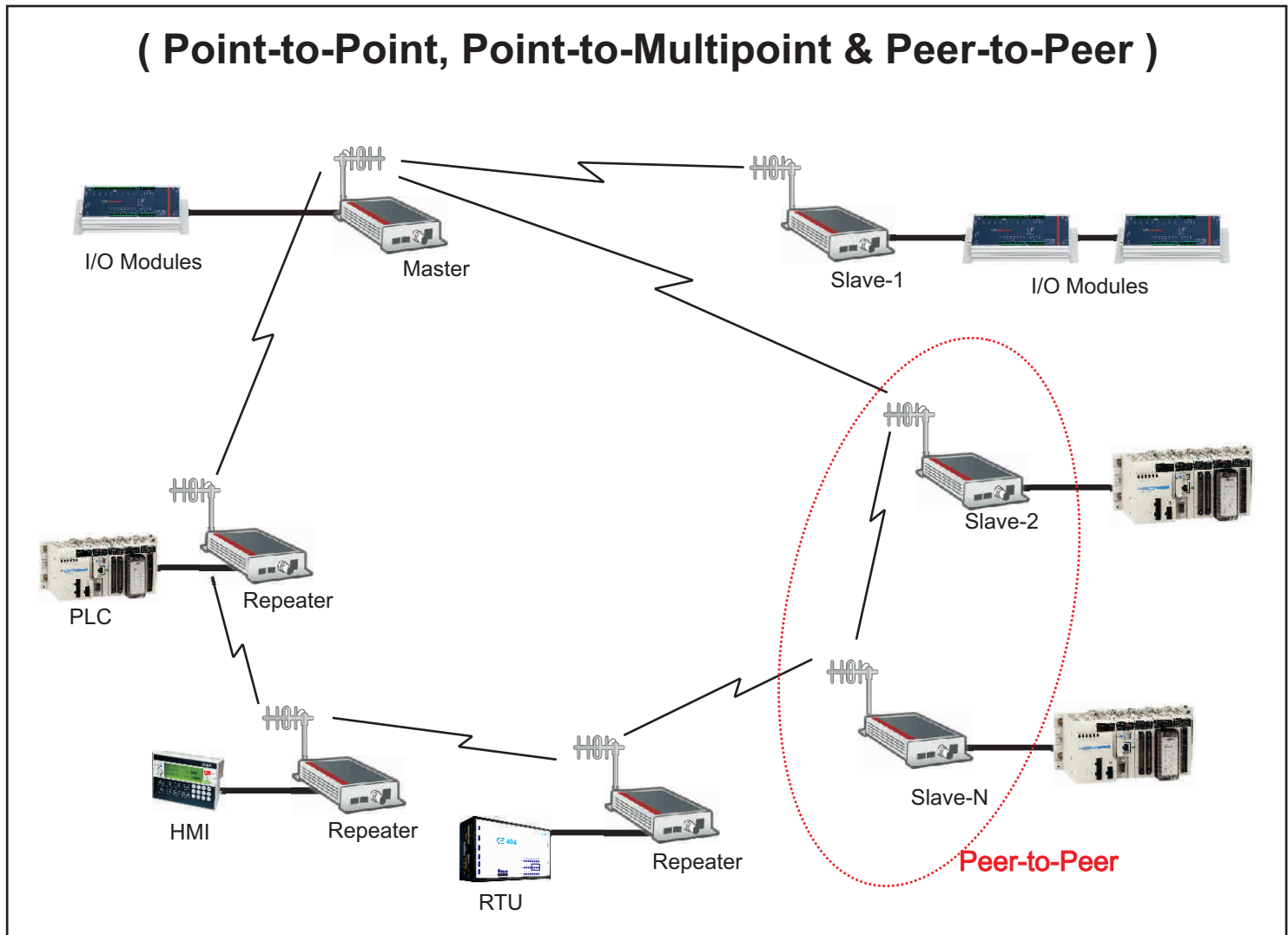
Features :

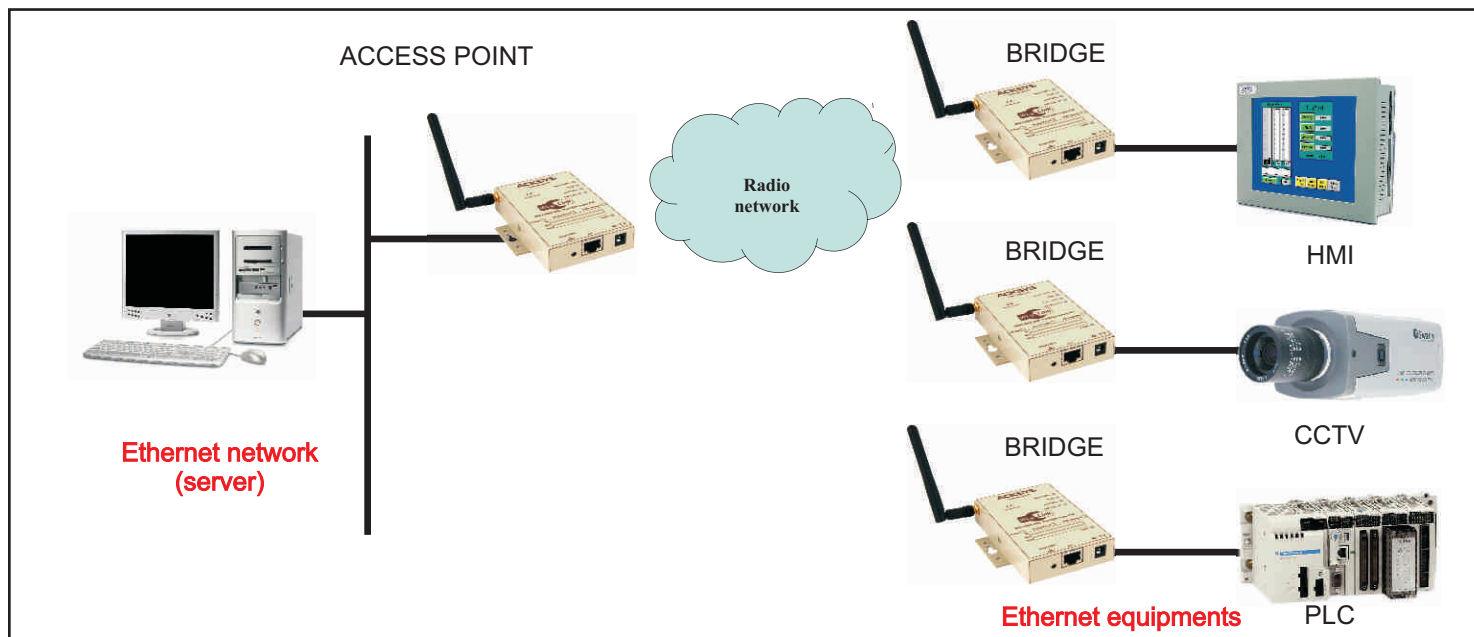
- ✓ Tri-band 900/1800/1900 MHz GSM/GPRS class 10 modem
- ✓ Compliant with GSM Phase 2+ standard
- ✓ Interface RS 232
- ✓ Data rate : 9600.....115200 bps
- ✓ SIM Holder
- ✓ Control via AT commands
- ✓ Support : GSM-GPRS, GSM-data, GSM-SMS, voice, fax
- ✓ Enclosure : Rugged, Industrial Ip65
- ✓ Operating Temperature : - 20 C to 70 C
- ✓ Operating Voltage : 9 to 36 VDC

WIRELESS NETWORK TOPOLOGIES



(Point-to-Point, Point-to-Multipoint & Peer-to-Peer)





Pyrotech Wireless Solution for

- ✓ Power Industry **P**
- ✓ Cement Industry **C**
- ✓ Steel Industry **S**
- ✓ Oil & Gas Industry **O**
- ✓ Water Automation **W**
- ✓ Material Handling Equipments **M**

Applications :	Industry						
✓ Remote PLC programming and diagnostics from control room.	P	C	S	O	W	M	
✓ Replacement for CCRD cable & assembly in stacker & reclaimer	P	C	S				
✓ Silo Level Monitoring and Controlling	P	C					
✓ Paddle Feeder	P						
✓ Coke Pusher Car			S				
✓ Interlocking Wagon Loader Signals with Conveyor Belt		C					
✓ Crusher to CCR Communication		C					
✓ EOT & ELL Cranes	P	C	S				M
✓ Tank Level Monitoring, Remote pump operation	P	C		O	W		
✓ Cooling Tower and Coal Bunker Level Measurement	P						
✓ PLC to PLC Communication (I/Os Transfer or Signal Transfer)	P	C	S	O	W	M	
✓ Long Range Ropeway Telemetry System	P	C					
✓ CCTV Communication through Wireless	P	C	S	O	W	M	
✓ Ambient Air Quality Monitoring Station	P	C	S	O	W		
✓ Bridging between industrial and front office networks	P	C	S	O	W	M	
✓ Supervisory control and data acquisition (SCADA)	P	C	S	O	W	M	
✓ Diaphragm temperature measurement in Ball Mill	P	C	S				

Specifications are subject to change without prior notice.

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