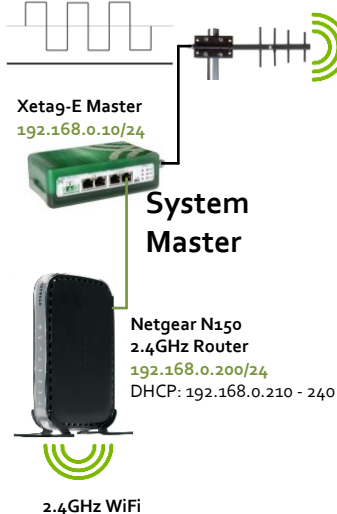
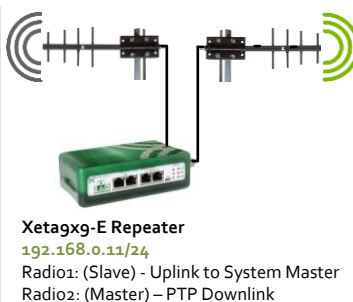


900MHz Synchronized Ethernet & Seamless Serial Scada System

System Master is the MMS Timing Pulse Generator

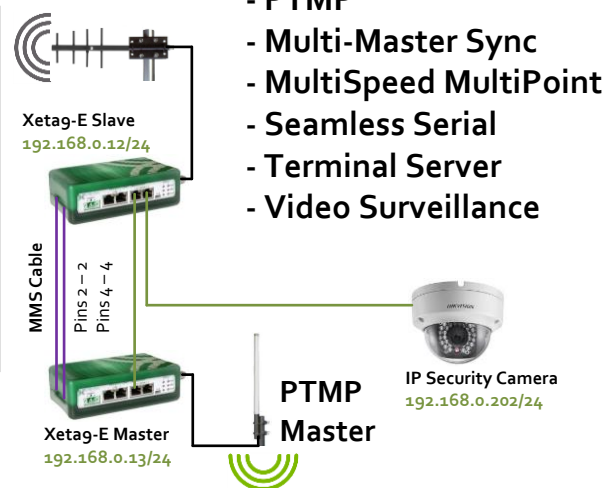


900MHz Network #1	Master	Slave
Band Start	902	902
Band Stop	928	928
Hop Pattern	2	2
Master Tx Rate	3535 16QAM	3535 16QAM
Slave Tx Rates	3535 16QAM	3535 16QAM
Max Payload Bytes	1600/1600	1600/1600
Dynamic	Off	Off
Network Address	1000	1000
Network Radius (km)	20	20
Device ID	1000	2000
Upstream Device ID	N/A	1000
Downstream Device ID	2000	N/A
Network Type	PTP	PTP
Protocol	Ethernet	Ethernet
MMS (Master)	Generate	Generate
MMS Hop Offset	0	0
Master Repeat	2	2



Repeater = ZERO throughput loss

900MHz Network #2	Master	Slave
Band Start	902	902
Band Stop	928	928
Hop Pattern	2	2
Master Tx Rate	3535 16QAM	3535 16QAM
Slave Tx Rates	3535 16QAM	3535 16QAM
Max Payload Bytes	1600/1600	1600/1600
Dynamic	Off	Off
Network Address	2000	2000
Network Radius (km)	20	20
Device ID	3000	4000
Upstream Device ID	N/A	3000
Downstream Device ID	4000	N/A
Network Type	PTP	PTP
Protocol	Ethernet	Ethernet
MMS (Master)	External	Generate
MMS Hop Offset	1	1
Master Repeat	2	2



- PTP
- PTMP
- Multi-Master Sync
- MultiSpeed MultiPoint
- Seamless Serial
- Terminal Server
- Video Surveillance

Scada Polling Host Applications...

Modbus Poll

- Modbus RTU TCP/IP Protocol connected via Ethernet to SCADAPack 350: 192.168.0.203/502
- Polling Register 30001 (NVRAM Voltage)
- Polling Register 30006 (DC Input Voltage)

Telepace Studio

- Scadapack 350 RTU Setup & Control
- Modbus RTU TCP/IP Protocol connecting to RTU Com2 via Terminal Server 192.168.0.14:4320
- Modbus RTU TCP/IP Protocol connecting to RTU Com3 via Seamless Serial Terminal Server 192.168.0.13:4324

IP Security Camera

- Web UI with Streaming Capability. Max bitrate set to 256Kbps

Seamless Serial Terminal Server Session

- Communication between Ethernet Scada Polling Host and Field Laptop through Seamless Serial PTMP system.

SCADAPack 350 RTU
192.168.0.203/24
Com2: 19200 8N1
Com3: 19200 8N1



Ethernet Slave

Xetagx-E (Emancipator+) Slave
192.168.0.14/24
Terminal Server: 4320

Xetagx-SB (Emancipator-) Slave
ID: 5002

Xetagx-SB Slave
ID: 5003

Field Laptop
Com3: 19200 8N1
Terminal Session

900MHz Network #3	Master	Slave
Band Start	902	902
Band Stop	928	928
Hop Pattern	2	2
Master Tx Rate	2651 8PSK	2651 8PSK
Slave Tx Rates	2651 8PSK	2651 8PSK
Max Payload Bytes	1600/1600	1600/1600
Dynamic	Off	Off
Network Address	5000	5000
Network Radius (km)	20	20
Device ID	5000	5001-5003
Upstream Device ID	N/A	5000
Downstream Device ID	N/A	N/A
Network Type	PTMP	PTMP
Protocol	Ethernet	Ethernet
MMS (Master)	External	Generate
MMS Hop Offset	1	1
Master Repeat	2	2

Seamless Serial Slaves

Coaxial: _____
Serial: _____
IO: _____
Ethernet: _____

900MHz Ethernet & Seamless Serial System

Doc Number: XW-GLB-DW-018_02

Revision: 02

Date: September 22 2015

