

PLC Systems Comparison & Features Matrix

Telkonet iWire™ System (14Mb PLC) & Telkonet Series 5 (200Mb PLC) System Level Specifications

System Overview	Telkonet iWire System (14Mb)	Telkonet Series 5 Industrial (AC/DC)	Telkonet Series 5 Commercial	Telkonet Series 5 FIPS
Data Rate (Chip speed)	• 14Mb	• 200Mb	• 200Mb	• 200Mb
Data Rate – TCP/UDP	• 5.7Mbps TCP	• 65Mbps TCP	• 65Mbps TCP	• 65Mbps TCP
Maximums	• 8Mbps UDP	• 90Mbps UDP	• 90Mbps UDP	• 90Mbps UDP
Encryption	• 56 DES	• 128 AES	• 128 AES	• 256 AES
QoS Support	• Low/ High Priority • Rate Limiting	• Rate-Limiting • Rules-Based	• Rate-Limiting • Rules-Based	• Rate-Limiting • Rules-Based
Wireless Support	• No	• Zigbee Module option – later release	• Zigbee Module option – later release	• No
Additional Interfaces	• No	• Model Dependent	• Model Dependent	• No
Router Mode	• Yes	• Later release	• Later release	• No
Multicast Support	• No	• Later release	• Later release	• Later release
Preferred Telkonet eXtender™ Support	• By Rx Strength	• By Rx Strength • Preferred Gateway/eXtender	• By Rx Strength • Preferred Gateway/eXtender	• By Rx Strength • Preferred Gateway/eXtender
Total Telkonet iBridge™ Support	• 1,023	• 1,023 Total • 63/eXtender in initial release	• 1,023 Total • 63/eXtender in initial release	• 1,023 Total • 63/eXtender in initial release
Total Telkonet eXtender Support	• 63 eXtenders per Gateway	• 63 eXtenders per Gateway is 100% isolation between eXtender clouds	• 63 eXtenders per Gateway is 100% isolation between eXtenders	• 63 eXtenders per Gateway 100% isolation between eXtenders
SSH/SSL Management	• No	• Yes	• Yes	• Yes
IPv6 Support	• No	• Later release	• Later release	• Yes
SNMPv2 or 3	• SNMPv2	• SNMPv2 • SNMPv3 Later Release	• SNMPv2 • SNMPv3 Later Release	• SNMPv3
Power Connector	• IEC-320 C5/C6	• AC/DC Plug adapter	• IEC-320 C5/C6	• IEC-320 C5/C6

Telkonet Gateway Specifications

Telkonet Gateway	Telkonet iWire System (14Mb)	Telkonet Series 5 AG5 Industrial (AC/DC)	Telkonet Series 5 AG5 Commercial	Telkonet Series 5 AG5 FIPS
LED's	<ul style="list-style-type: none"> • WAN – Link and Activity • LAN – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • WAN – Link and Activity • LAN – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • WAN – Link and Activity • LAN – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • WAN – Link and Activity • LAN – Link and Activity • PLC – Link Activity • Power
PLC Carrier Interface	<ul style="list-style-type: none"> • F-Connector 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant)
Ethernet Interface	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support
Additional Interfaces	<ul style="list-style-type: none"> • RS232 (Management only) 	<ul style="list-style-type: none"> • Model Dependent 	<ul style="list-style-type: none"> • Model Dependent 	<ul style="list-style-type: none"> • None
Gateway PLC Operational Temperature	<ul style="list-style-type: none"> • Yes • 0° to +50° C non-condensing 	<ul style="list-style-type: none"> • Later release • -40° to +70° C non-condensing 	<ul style="list-style-type: none"> • Later release • 0° to +65° C non-condensing 	<ul style="list-style-type: none"> • Later release • 0° to +65° C non-condensing
Storage Temperature	<ul style="list-style-type: none"> • -20° to +70°C 	<ul style="list-style-type: none"> • -40° to +70° C 	<ul style="list-style-type: none"> • -20° to +70°C 	<ul style="list-style-type: none"> • -20° to +70°C
Input Rating	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz 	<ul style="list-style-type: none"> • 100 – 240VAC .0.25A, 50/60Hz, • 48 – 250VDC 	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz 	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz
Regulatory Compliance	<ul style="list-style-type: none"> • NRTL Certified (Listed) to • ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 • CE 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to • ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to • ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Compliance with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to • ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Compliance with IC: ICES-0006; en conformité avec IC: NMB-006
Physical Characteristics	<ul style="list-style-type: none"> • L: 6.2 inches / 157mm • W: 5.6 inches, 142mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm

Telkonet eXtender™ Specifications

Telkonet eXtender	Telkonet iWire System (14Mb)	Telkonet Series 5 AX5 Industrial (AC/DC)	Telkonet Series 5 AX5 Commercial	Telkonet Series 5 AX5 FIPS
LED's	<ul style="list-style-type: none"> • ETH – Ethernet Link and Activity • PLC – PLC Link and Activity • Power 	<ul style="list-style-type: none"> • LAN1 – Link and Activity • LAN2 – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • LAN1 – Link and Activity • LAN2 – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • LAN1 – Link and Activity • LAN 2– Link and Activity • PLC – Link Activity • Power
PLC Carrier Interface	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant)
Ethernet Interface	<ul style="list-style-type: none"> • 1xRJ45 10/100base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support) 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support
Operational Temperature	<ul style="list-style-type: none"> • 0° to +50° C non-condensing 	<ul style="list-style-type: none"> • -40° to +70° C non-condensing 	<ul style="list-style-type: none"> • 0° to +65° C non-condensing 	<ul style="list-style-type: none"> • 0° to +65° C non-condensing
Storage Temperature	<ul style="list-style-type: none"> • -20° to +70°C 	<ul style="list-style-type: none"> • -40° to +70°C 	<ul style="list-style-type: none"> • -20° to +70°C 	<ul style="list-style-type: none"> • -20° to +70°C
Power/Input Rating	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz 	<ul style="list-style-type: none"> • 100 – 240VAC .0.25A, 50/60Hz, 48 – 250VDC 	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz 	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz
Regulatory Compliance	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 • CE 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006
Physical Characteristics	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm

Telkonet iBridge™ Specifications

Telkonet iBridge	Telkonet iWire System (14Mb)	Series 5 AB5 Industrial (AC/DC)	Series 5 AB5 Commercial	Series 5 AB5 FIPS
LED's	<ul style="list-style-type: none"> • ETH – Ethernet Link and Activity • PLC – PLC Link and Activity • Power 	<ul style="list-style-type: none"> • LAN1 – Link and Activity • LAN2 – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • LAN1 – Link and Activity • LAN2 – Link and Activity • PLC – Link Activity • Power 	<ul style="list-style-type: none"> • LAN1 – Link and Activity • LAN2 – Link and Activity • PLC – Link Activity • Power
PLC Carrier Interface	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant) 	<ul style="list-style-type: none"> • F-Connector or Power Connector (model dependant)
ETH Interface	<ul style="list-style-type: none"> • 1xRJ45 10base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support) 	<ul style="list-style-type: none"> • 2xRJ45 10/100base-T • Auto-Crossover support
Additional Interface Options	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • RS232 and/or 485 • Powered Interface • None 	<ul style="list-style-type: none"> • RS232, 485 option • Powered Interface • None 	<ul style="list-style-type: none"> • RS232, 485 option • Powered Interface • None
Operational Temperature	<ul style="list-style-type: none"> • 0° to +50°C non-condensing 	<ul style="list-style-type: none"> • -40° to +70°C non-condensing 	<ul style="list-style-type: none"> • 0° to +65°C non-condensing 	<ul style="list-style-type: none"> • 0° to +65°C non-condensing
Storage Temperature	<ul style="list-style-type: none"> • -20° to +70°C 	<ul style="list-style-type: none"> • -40° to +70°C 	<ul style="list-style-type: none"> • -20° to +70°C 	<ul style="list-style-type: none"> • -20° to +70°C
Power/Input Rating	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz 	<ul style="list-style-type: none"> • 100 – 240VAC 50/60Hz • 48 – 250VDC 	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz 	<ul style="list-style-type: none"> • 100-240 VAC, 0.25A, 50/60Hz
Regulatory Compliance	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 • CE 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> • NRTL Certified (Listed) to ANSI/UL 60950-1-2006 • IEC 60950-1 • FCC Part 15 • Complies with IC: ICES-0006; en conformité avec IC: NMB-006
Physical Characteristics	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm 	<ul style="list-style-type: none"> • L: 6 inches / 152mm • W: 4.3 inches / 109mm • H: 1.1 inches / 28mm

Telkonet Coupler Specifications

Telkonet Coupler	MVC-100 (Wye)	DPC-100 (Delta)	MVC-200 (Wye)	DPC-200 (Delta)
Power Line Carrier Interface	<ul style="list-style-type: none"> F-type connector 	<ul style="list-style-type: none"> F-type connector 	<ul style="list-style-type: none"> F-type connector 	<ul style="list-style-type: none"> F-type connector
Power Terminals	<ul style="list-style-type: none"> Four terminals: one for each phase (three total) and neutral 	<ul style="list-style-type: none"> Three terminals: one for each phase (three total) and neutral 	<ul style="list-style-type: none"> Four terminals: one for each phase (three total) and neutral 	<ul style="list-style-type: none"> Three terminals: one for each phase
Electrical Cable	<ul style="list-style-type: none"> 4 Conductor XHHN-2, 12 AWG 600V Cables: phase A, phase B, phase C and neutral Supports connection to a single, split or 3-phase Wye system 	<ul style="list-style-type: none"> 3 Conductor XHHN-2, 12 AWG 600V Cables: phase A, phase B, phase C Supports connection to a single, split or 3-phase Wye system 	<ul style="list-style-type: none"> 4 Conductor XHHN-2, 12 AWG 600V Cables: phase A, phase B, phase C and neutral Supports connection to a single, split or 3-phase Wye system 	<ul style="list-style-type: none"> 3 Conductor XHHN-2, 12 AWG 600V Cables: phase A, phase B, phase C Supports connection to a single, split or 3-phase Delta system
Operational Temperature	<ul style="list-style-type: none"> 0°C to 50°C non-condensing 	<ul style="list-style-type: none"> 0°C to 50°C non-condensing 	<ul style="list-style-type: none"> -40°C to 70°C non-condensing 	<ul style="list-style-type: none"> -40°C to 70°C non-condensing
Storage Temperature	<ul style="list-style-type: none"> -20°C to 70°C 	<ul style="list-style-type: none"> -20°C to 70°C 	<ul style="list-style-type: none"> -40° to +70°C 	<ul style="list-style-type: none"> -40°C to 70°C
Power/Input Rating	<ul style="list-style-type: none"> 100-480 VAC, 0.1 amps, 50/60 Hz, AC-3AC, Wye 	<ul style="list-style-type: none"> 100-480 VAC, 0.1 amps, 50/60 Hz, AC-3AC, Delta 	<ul style="list-style-type: none"> 100-480 VAC, 0.1 amps, 50/60 Hz, AC-3AC, Wye, 0-250VDC 	<ul style="list-style-type: none"> 100-480 VAC, 0.1 amps, 50/60 Hz, AC-3AC, Delta, 0-250VDC
Regulatory Compliance	<ul style="list-style-type: none"> NRTL Certified (Listed) to ANSI/UL 60950-1-2006 IEC 60950-1 FCC Part 15 Complies with IC: ICES-0006; en conformité avec IC: NMB-006 CE 	<ul style="list-style-type: none"> NRTL Certified (Listed) to ANSI/UL 60950-1-2006 IEC 60950-1 FCC Part 15 Complies with IC: ICES-0006; en conformité avec IC: NMB-006 CE 	<ul style="list-style-type: none"> NRTL Certified (Listed) to ANSI/UL 60950-1-2006 IEC 60950-1 FCC Part 15 Complies with IC: ICES-0006; en conformité avec IC: NMB-006 	<ul style="list-style-type: none"> NRTL Certified (Listed) to ANSI/UL 60950-1-2006 IEC 60950-1 FCC Part 15 Complies with IC: ICES-0006; en conformité avec IC: NMB-006
Physical Characteristics	<ul style="list-style-type: none"> L: 5.6 inches, 142mm W: 5.8 inches, 147mm H: 2.3 inches, 58mm 	<ul style="list-style-type: none"> L: 5.6 inches, 142mm W: 5.8 inches, 147mm Ht: 2.3 inches, 58mm 	<ul style="list-style-type: none"> L: 5.6 inches, 142mm W: 5.8 inches, 147mm H: 2.3 inches, 58mm 	<ul style="list-style-type: none"> L: 5.6 inches, 142mm W: 5.8 inches, 147mm H: 2.3 inches, 58mm
Phoenix Terminal Block	<ul style="list-style-type: none"> 4 Terminals, Torque Spec-4.4in/lb or 0.5Nm 	<ul style="list-style-type: none"> 3 Terminals, Torque Spec-4.4in/lb or 0.5Nm 	<ul style="list-style-type: none"> 4 Terminals, Torque Spec-4.4in/lb or 0.5Nm 	<ul style="list-style-type: none"> 3 Terminals, Torque Spec-4.4in/lb or 0.5Nm

Telkonet PLC Systems Comparison Summary

The Telkonet Series 5 uses distributed switching at the Telkonet eXtender™, allowing for higher system bandwidth aggregation. In a multi-building isolated system architecture, the Telkonet Series 5 can aggregate 4 - 6Gbps as opposed 50Mbps for the Telkonet iWire System™ (14Mbps).

The Telkonet Series 5 Gateway (AG5) acts as a manager as opposed to an aggregator. The AG5 supports SSL/SSH. The AG5 Gateway will not support PLC on GA 5.1.x release, but will be included in GA 5.2.x release. The Telkonet Series 5 has extended temperature operation range of 0 to +65 degrees C and an optional Industrial screened version rated for -40 to +70 degrees C operation.

The Telkonet Series 5 supports 63 Telkonet iBridges™ per un-isolated domain (single building) when in Learning mode (which allows Telkonet iBridges to associate with whichever Telkonet eXtender they “hear” the best). Alternatively, the system has the ability to soft configure Telkonet iBridges to a specific Telkonet Gateway/Telkonet eXtender.

The Telkonet Series 5 supports optional (model dependent) AC/DC applications (48-250VDC), in addition to the standard AC only system (100-240VAC). A new MVC200 and DPC200 were designed to support both AC/DC systems.

A model of the Telkonet Series 5 iBridge includes an optional Serial Interface Port to support DNP3, Modbus, RS232 and RS485 interfaces. Configurable software supports both Ethernet-to-serial and serial-to-serial bridging of DNP3, Modbus protocols.

The Telkonet Series 5 iBridge (AB5) also has dual Ethernet ports with separate VLANs per port.

The Telkonet Series 5 has enhanced QoS with 8 independent rules with independent triggers, traffic shaping, priorities and timeouts, and also supports 4 Class of Service profiles for Telkonet iBridge parameters, making deployment of “tiered services” within a premise quick and easy.

www.ivacommunications.net

IVA Communications, LLC

911 Silver Spring Avenue, Ste., 202
Silver Spring, Maryland 20910
management@ivacommunications.net

Phone: 301.585.0746
Toll-Free in the US: 800.326.9936
Fax: 301.585.0747