

As part of the EkkoSense Critical Things® family of monitoring solutions, EkkoLink serves as a data aggregator, receiving data from EkkoHubs and securely forwarding it over an internet (wired or cellular) connection to EkkoSoft Critical in the cloud.



## About EkkoLink

EkkoLink is able to retrieve data from other on-site third-party devices and networks using Modbus, OBIX or SNMP. Data from these other sources is also forwarded to EkkoSoft Critical.

### **Flexible, safe and secure**

In the event of a temporary loss of external connectivity, EkkoLink buffers the site data and automatically transfers it to EkkoSoft Critical when the connection is restored. EkkoLink can also be used to make EkkoSense measurement data available to other applications on site by providing an OBIX data source.

EkkoLink features three LAN ports. One is dedicated to the external internet connection, one to the on-site EkkoSense network (for EkkoHubs) and the remaining one can be configured for local data integration. Network configuration and security rules are applied separately for each network to provide robust segregation. EkkoLink also has two RS485 ports configured for Modbus communication. These can be used to directly connect to local devices such as power meters to retrieve data for forwarding to EkkoSoft.

EkkoLink is implemented as an appliance running Debian 9. The core hardware is a shallow depth (184mm) 1U 19" fan-less rack mount platform.

The appliance can be installed in client racks or in a dedicated EkkoSense low profile wall mount rack along with other infrastructure such as a PoE switch for the EkkoHubs.



## Critical Things®

INTEGRATED SENSOR TECHNOLOGY

Our ultra-low cost 'Critical Things®' sensors are compact and unobtrusive, and can be deployed in large numbers, ensuring that high spatial resolution is available, down to rack-level where required. This allows the air temperature and humidity at each asset of interest to be accurately monitored, and wirelessly transmitted to enable the measurement of values at predefined intervals.

Parameter	Specification
Hardware specification	Processor: Intel® ATOM™ x7-3950 Processor, Quad Core, 2M Cache, 1.6GHz (2.0GHz), 12W Memory: Dual SO-DIMM DDR3L 8GB Display VGA and DP++
BIOS	Insyde SPI 64bit
Storage	1 x 2.5" SSD Data storage backup configurable – default 24 hours
Operating System	Debian 9
Display	Intel® HD Graphics GT Series VGA: up to 2560x1600@60Hz DP++: up to 4096x2160@60Hz
Audio	Realtek ALC262-VC2-GR Line-Out via 3.5mm jack
On-board LAN	Quad RJ45 GbE Intel® I21xAT PCIe (10/100/1000Mbps)
Mechanical	Design: 19" Rackmount Construction: Heavy Duty Aluminium Front panel / Mounting ears black powder coating Body raw clean finish Dimensions (WxHxD mm): 429 x 44 x 184
Environment	Operating Temperature: 0°C to 60°C Operating Humidity: 5 to 90% RH Storage Temperature: -30°C to 80°C Storage Humidity: 5 to 90% RH
Power Input	20m (21yds)
Data Transfer	Typical data transfer of 1MB per data-point per month at 10/100Mbps (1Gb per month / 1,000 datapoints)
Regulatory approval	EkkoLink is CE marked and conforms to the following standards: EMC Directive 2014/30/EU BS EN 55032:2012 Electromagnetic compatibility of multimedia equipment: Emission requirements. Class A equipment BS EN 55024:2010 Information technology equipment. Immunity characteristics. Limits and methods of measurement Low Voltage Directive (LVD) 2014 / 35 / EU BS EN 60950-1:2006+A2:2013 RoHS Directive 2011/65/EU The restriction of the use of certain hazardous substances in electrical and electronic equipment