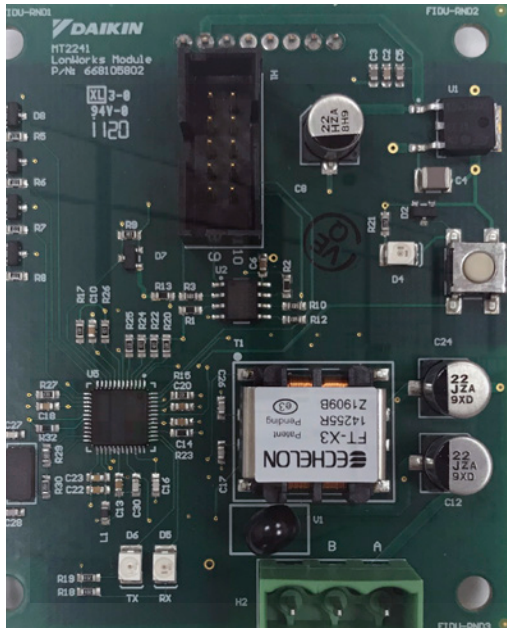




MicroTech® Controls for LONWORKS® Networks



Advanced HVAC Technology

Dedicated outside air systems (DOAS) bring the outside in by drawing 100% outside air through the unit and into the building's HVAC system to improve indoor air quality and ensure that proper ventilation is efficiently delivered to the desired space.

The SMARTSOURCE® DOAS is designed to accommodate a diverse range of entering air conditions ranging from the hottest summer days to the coldest winter nights. It provides advanced unit control features for maximum application flexibility, and incorporates an impressive array of leading technologies to provide premium performance, achieving up to a 7.1 ISMRE rating that is 66% higher than ASHRAE's 90.1-2019 minimum efficiency.

Optimum Unit Performance with MicroTech Controls

DOAS Water Source Heat Pump (WSHP) controllers offer built-in logic that automatically selects between heating, cooling, or dehumidification modes of operation. It dynamically controls compressor staging, modulating hot gas reheat, and the electronically-controlled expansion valve to produce a discharge air temperature accuracy of +/-1°F under steady-state



Network Solutions for Building/Equipment Applications

DOAS WSHPs with MicroTech controls support industry standards to provide superior building performance and a higher quality indoor environment.

Application

The LONWORKS® communication module connects the unit controller to the building automation system (BAS) on a LONWORKS network. It enables the exchange of variables between the unit controller and the network.

The communication module is LonMark 3.4 certified and is configured in accordance with the LonMark Discharge Air Control (DAC) Functional Profile_8610.

Features

- Integration into a building automation and control system via LONWORKS
- Installed with LonMark® 3.4 certified firmware
- LONWORKS-standard Neuron Processor that translates the the unit controller application into the LONWORKS network protocol. Each processor has a unique 48-bit Neuron ID for network addressing.
- LEDs that indicate communication status and network activity
- Configurable using the latest Echelon® Commissioning Tool (CT) for FT 6050 Smart Transceiver devices
- Circuit board easily connects to the unit controller

Technical Specifications

General	
Dimensions	2.95" x 2.6" (75mm x 65 mm)
Operating	
Temperature	-40 - 158°F (-40 - 70°C)
Humidity	<90% RH (note that the board has 2mil factory-applied conformal coating for extra humidity protection)
Power	DC 5 V (+/-5%) power supplied by unit controller baseboard
Storage and Transportation	
Temperature	-40 - 158°F (-40 - 70°C)
Humidity	<90% RH
Network	
Network cable	Twisted pair wire with 3-pin connector, compliant with RS-485 standard TIA/EIA-485-A
Bus connection	Galvanically isolated, 78k baud
Transceiver	LONWORKS FT 6050 Smart Transceiver supports TP/FT-10 channel Polarity insensitive
LONWORKS data memory	512 KB SPI flash memory
Network connector	3-pin (GND, A, and B) network connector plug
Transformer	FT-X3 communications transformer
Communications Protocol	ISO/IEC 14908-1 (ANSI/CEA 709.1-B and EN14908.1) control network protocol
Agency Listings/Certifications	
US	UL 60730-1 (baseboard)
Canada	CSA E60730-1 (baseboard)
International	OSI Model, ISO Standard 7498-1 LonMark 3.4 certified to SCC (8500_20) Functional Profile, v2.0

For more information about our complete offering of HVAC systems and solutions, contact your local Daikin Applied Sales office or visit www.DaikinApplied.com to find an office near