

UCM SPECIFICATION

UCM = Universal Communication Module

Manufacturer = DMT, LLC (Detection Monitoring Technologies)

Warranty = 1 or 2 year Limited Warranty



Figure 1. This is the UCM.
(Standard Model Shown)

Description

The UCM is combination power supply and network communication device for DMT radars and cameras. The device requires AC power (autosensing 110/220 VAC 50/60 Hz) and outputs 24 VDC, PoE, and PoE+ to cameras and 24 or 48 VDC to DMT radars (depending on the model). The system comes in Standard (1 radar, 2 cameras), Plus (1 radar, 4 cameras), 2-Radar (2 radars, 2 cameras), or Deluxe (1 radar, many cameras with PoE and PoE+ ports) models. All models include an accessory port, which permits add-ons like AIS (Automatic Identification System) or BFT (blue-force tracker) modules.

Features	Standard	Plus	2-Radar	Camera Deluxe
Radar Umbilical Ports (Power+Comms)	1 (48 VDC)	1 (48 VDC)	1 (48 VDC)	
Radar Power Ports			1 (24 VDC)	1 (24 VDC)
Radar RJ/45 Ports	√	√	1	1
Compliant Radars	AIMS Fast-Scan, AIMS HDR, Spearfish, LDSR	AIMS Fast-Scan, AIMS HDR, Spearfish, LDSR	All DMT Radar Models	IDAR, MDR, Black Marlin, XRDS
Compliant Cameras	IEC Wolf and Werewolf, Gen Dyn EOSS, PVP NightHawk and CMG, FLIR PT-Series and HRC Systems and Ranger MS-UC (DefendIR) series, EMX MidWatch, Moog Cameras, Vumii Claritii	IEC Wolf and Werewolf, Gen Dyn EOSS, PVP NightHawk and CMG, FLIR PT-Series and HRC Systems and Ranger MS-UC (DefendIR) series, EMX MidWatch, Moog Cameras, Vumii Claritii	IEC Wolf and Werewolf, Gen Dyn EOSS, PVP NightHawk and CMG, FLIR PT-Series and HRC Systems and Ranger MS-UC (DefendIR) series, EMX MidWatch, Moog Cameras, Vumii Claritii	FLIR PT-Series and Ranger MS-UC (DefendIR) series, EMX MidWatch, Moog Cameras, Vumii Claritii, Most Axis PoE and Pelco Camera models, and cameras using Pelco-D controls and PoE
DMT Camera Ports (Power + Comms)	2 for AIMS Fast-Scan; otherwise 1	5 for AIMS Models, otherwise 4	3 for AIMS Models; 2 otherwise	1
15W POE Camera Ports				3
30 W POE+ Camera Ports				2
60 W POE++ Camera Ports				1
Network Port #1	RJ/45	RJ/45	RJ/45	RJ/45
Network Port #2	Terminates to SC connector thru conduit port	Terminates to SC connector thru conduit port	Terminates to SC connector thru conduit port	Terminates to SC connector thru conduit port

Features	Standard	Plus	2-Radar	Camera Deluxe
Network Switch Ports	5	8	8	12
Power Port *	Conduit	Conduit	Conduit	Conduit
Conduit Port**	1	1	1	1
Accessory Port (for AIS, BFT)	√	√	√	√
4-port Video Encoder	√	√	√	√
LED Power Switches	4	4	4	4
500 W AC/DC Power Supplies	2	2	2	1
Remote Radar & Power On/OFF	√	√	√	√

* 3-prong AC plug also available at no additional charge. **Used for SM Fiber or other devices.

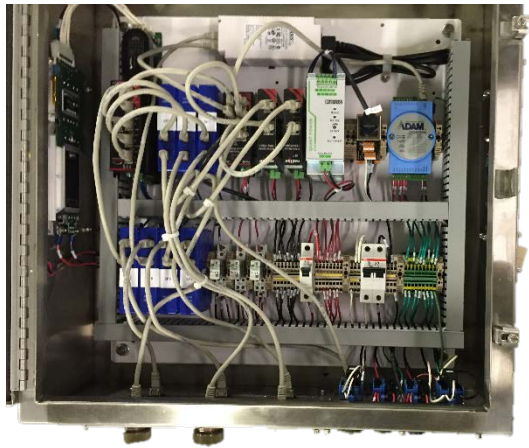


Figure 2. Inside the UCM (Camera Deluxe Model).

The UCM is an outdoor enclosure and can be mounted to poles, Rohn 25G, 45G, 55G, or 65G towers, or walls. It is designed for -40 to +65 degrees C operating temperatures. It is made for all-weather operation and requires no maintenance.

UCM Specifications

Size	24 x 20 x 8 inches (excluding fan brackets and handles)
Enclosure	Stainless Steel or Painted Stainless Steel. Weatherproof. Designed for maritime and desert environments.
Weight	75-90 lbs (varies based on different options)
Network Switch	10/100/1000 MBPS 1-port single-mode fiber (Optional MMF)
Video Server	Axis Q7424-R Video Server 4-port input BNC Video Compression: H.264, or MPEG, or both (over two video streams) NTSC or PAL (set manually) Input Format: Analog Video or RJ/45 Digital video Max Frame Rate: 30 fps (NTSC), or 25 fps (PAL) Maximum video resolution (pixels): 720 x 480 NTSC, 720 x 576 PAL PTZ Ports: one RS-232/422/485 port Latency: < 200 msec.
Circuit Breakers	For all internal voltages
Remote Power On/Off	For radar and cameras. Controlled remotely using DMT software or Axis web interface

Maximum Input Power	1200 Watts AC. (Note: Maximum DC power consumption is 1000 watts.) Autosensing to accept 90-140 VAC, and 220-270 VAC, 47 to 90 Hz
Maximum Output Power for Cameras	480 watts for Standard, Plus, and 2-Radar model. For Camera Deluxe model, 250 for FLIR, Moog, EMX type cameras, and 165 Watts for POE and POE+ cameras.
Maximum Output Power for Radar	480 watts
Environmental	-40 to +65 degrees C Operating Temperature 6,500 Amp protection on Network lines 3000 Amp protection on Power lines (more surge protection optionally available) Internal thermal shutdown to protect system: 95 degrees C. System meets or exceeds MIL-STD 810.
Mounting (select one)	<ul style="list-style-type: none"> Rohn 25G, 45G, 55G, or 65G tower mounts Schedule 80, 8-inch pole mount Custom mounts are available, but delivery times vary
Switches	LED-illuminated push-button switches for radar, camera and enclosure.
Connectors:	All connectors are weather-tight. Available across models: <ul style="list-style-type: none"> Twist-on 3-wire power connector or conduit port for power RJ/45 Connectors Conduit opening for single-mode fiber Twist-on radar power connector Twist-on many-pin camera connector (1 to 4, depending on model) Twist-on many-pin accessory connector
MTBF:	>5 years.
Required Maintenance:	None

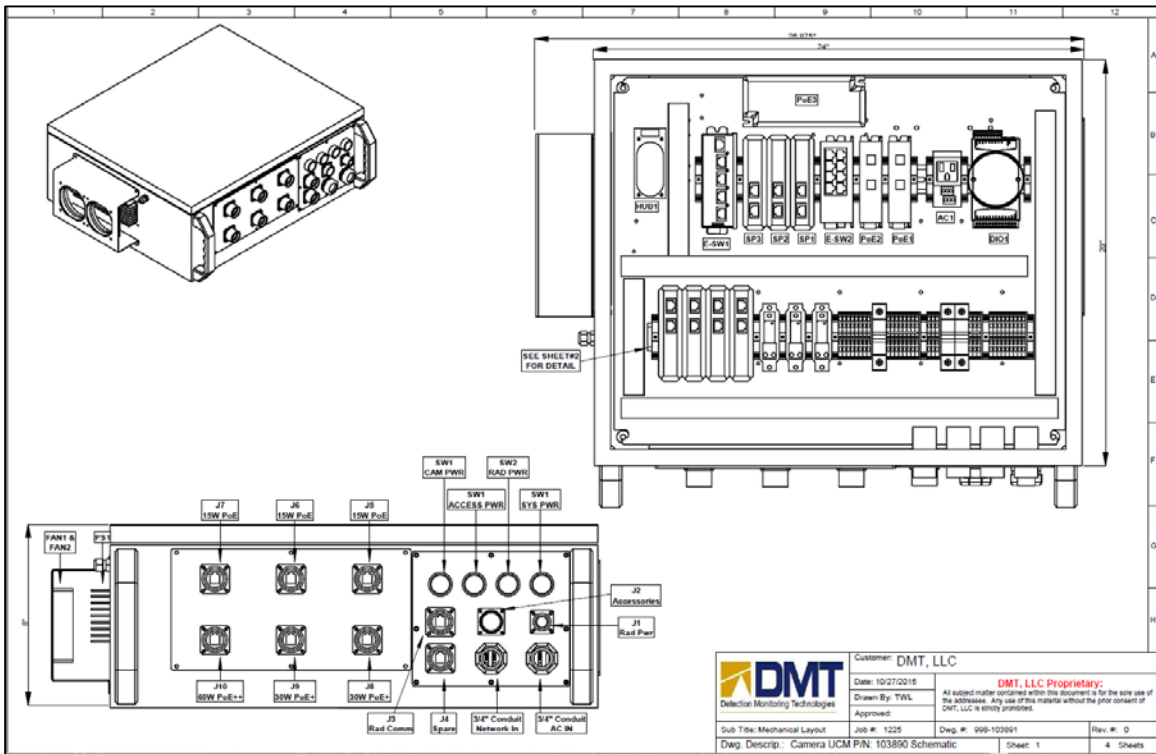


Figure 3. UCM Drawings (Camera Deluxe Model shown here).