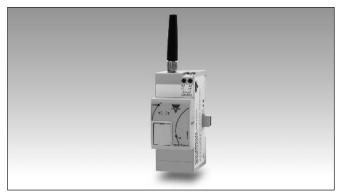# Smart Dupline®
Universal Mobile Modem
Type SH2UMMF124

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- Universal modem extension for Sx2WEB24
- Connection to Sx2WEB24 via internal bus
- Compatibility with quad-band GSM-GPRS-EDGE standards
- Compatibility with dual-band UMTS-GPRS-HSPA standards
- SIM (25 x 15mm) for data communication (M2M SIM type only)
- Available versions: one for Europe
- Dimensions: 2-DIN module
- Protection degree (front): IP40

Product Description

The SH2UMMF124 is a universal mobile modem which, connected to a Sx2WEB24, enables the control and monitoring of the smart house functions/ events, sending and receiving SMS messages to/from mobile phones. The SMS functions are programmed by the SH tool.
Using SMS messaging the user can:
- activate/deactivate functions
- read function status
- write analogue values (setpoints, timers)

- read analogue values (setpoints, timers, analogue inputs such as temperature sensors, lux sensors…)
- receive events (alarms, function status changes, analogue signal crossing setpoints,…).
- receive feedback on the sent commands.
Furthermore the SH2UMMF124 is based on UMM communication technology for data communication when wired internet is not available.

Ordering Key

SH 2 UMM F124

smart-house	
2-DIN housing	
Universal modem	
Area	
Power supply	

Type Selection

Housing	Mounting	Compatibility Area	Supply: 15 to 30 VDC
2 DIN	DIN-rail	Europe	**SH2UMMF124**

Supply Specifications

Power supply	Overvoltage cat. II (IEC 60664-1, par. 4.3.3.2)
Rated operational voltage	15 to 24 VDC ± 20%
Operational voltage range	15 to 30 VDC (ripple included)
Rated impulse voltage	500V (1,2/50µs) (IEC 60664-1, tab. F.1)

Rated operational power	5 W
Protection for reverse polarity	Yes
Connection	A1 (+) and A2 (-)
Power on delay	Typ. 4 s
Power off delay	1 s

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Main hardware characteristics

Radio modem	
Communication technology	GSM, GPRS, EDGE standards Quad band: 850 MHz, 900 MHz, 1800 MHz, 1900 MHz. UMTS and HSPA standards Dual band: Europe (EUD): 900 MHz, 2100 MHz;
Output power	Class 4 (2 W, 33 dBm) @ GSM 850/900 MHz Class 1 (1 W, 30 dBm) @ GSM 1800/1900 MHz Class E2 (0.5 W, 27 dBm) @ EDGE 850/900 MHz Class E2 (0.4 W, 26 dBm) @ EDGE 1800/1900 MHz Class 3 (0.25 W, 24 dBm) @ UMTS
Modem Configuration	By means of the SH tool: - Access Point Name (APN) - connection number
SIM	
Type	SIM (25 x 15mm) for data communication (M2M SIM type only)
Holder	On the front with protection cover

Communication Purpose	Access to the Sx2WEB24 if wired network is not available to send SMS
UMTS-HSPA connectivity	
Downlink speed	HSDPA 7.2Mb/s (category 8
Uplink speed	HSUPA 5.76Mb/s (category 6)
W-CDMA (Wideband Code Division Multiple Access)	Downlink/Uplink up to 384 kb/s
GPRS-EDGE connectivity	
Multi-slot	12 class
Mobile-station	B class
Downlink speed	GPRS: up to 107 kb/s EDGE: up to 296 kb/s
Uplink speed	GPRS: up to 85.6 kb/s EDGE: up to 236.8 kb/s
CSD (Circuit Switch Data)	Downlink/Uplink: up to 14.4 kb/s
Auxiliary port	
Type and connections	Compatible with Sx2WEB24 unit only
LED's indication	
Power LED	1 green
GSM LED	1 blue

General Specifications

Over voltage category	Cat. III (IEC 60664, EN60664)
Dielectric strength	4000 VAC RMS for 1 min.
Noise rejection	
CMRR	65 dB, 45 to 65 Hz
Environment	
Protection degree	
Front	IP40
Screw terminals	IP20
Operating temperature	-20° to +50° (-4° to 122 °F)
Storage temperature	-30 to +70°C (-22°F to 158°F) (R.H. < 90% non-condensing @ 40°C)
Connection	
Antenna	RP-SMA female
Power supply	2 screw terminals 1.5 mm² max Min./Max. screws tightening torque: 0.4 Nm / 0.8 Nm
Housing	
Dimensions (WxHxD)	38.8 x 90 x 63.18 mm
Material	Noryl, self-extinguishing: UL 94 V-0
Mounting	DIN-rail
Weight	Approx. 100 g (packing included)
Approvals	cULus according to UL60950 **UL notes:** Max room temperature: 40°C

CE Marking	Yes
EMC	
Immunity	According to EN61000-6-2
- Electrostatic discharges	EN61000-4-2: 8 kV air discharge, 4 kV contact;
- Immunity to irradiated Electromagnetic fields	EN61000-4-3: 10 V/m from 80 to 3000 MHz;
- Immunity to Burst	EN61000-4-4: 4 kV on power lines, 2kV on single lines;
- Immunity to conducted disturbances	EN61000-4-6: 10 V from 150 KHz to 80 MHz;
- Surge	EN61000-4-5: 500 V on power supply
Emission	According to EN61000-6-3
- Radio frequency suppression	According to CISPR 22
Standard compliance	
Safety	IEC60664, IEC61010-1 EN60664, EN61010-1
Health and Safety	EN 60950
EMC	EN301489-1, EN301 489-1-7
RF spectrum efficiency	EN301511
Accessories	The SH2UMMF124 is delivered together with an antenna with RP-SMA connector to be screwed directly on the unit.

Specifications are subject to change without notice (10.04.14)

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Mode of Operation

The SH2UMMF124 module must be connected to the Sx2WEB24 via the internal bus and it must be located only on the left side of the Sx2WEB24.
All the functions and setup (phone numbers) are programmed using the SH tool. The SIM card is not included.

LEDs Indication

Green LED: Power status.
ON: Supply ON
OFF: Supply OFF

Blue LED: Communication
- OFF: the unit is OFF.
- Fast blinking: net search / not registered / turning off.
- Slow blinking: registered full service.
- ON: a call is active.

Dimensions (mm)