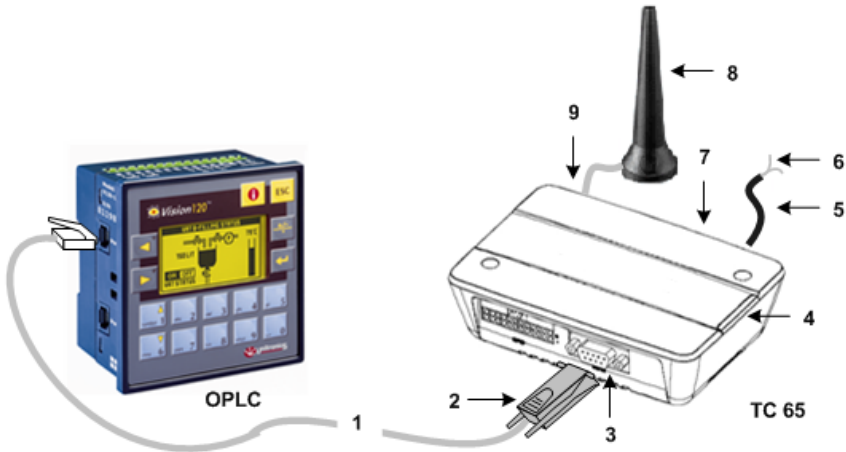


The GSM-14J Modem Kit: Cinterion TC65

This kit enables your SMS-enabled OPLC to communicate via cellular networks. The kit, GSM-14J Modem Kit, contains a Cinterion TC65 GSM modem and related hardware. The modem can communicate via GSM, GPRS + TCP/IP at 850/900/1800/1900 MHz.

Connection

The figure below shows you how to assemble the different elements of the Cinterion TC65 GSM modem, and how to connect the modem to an OPLC.

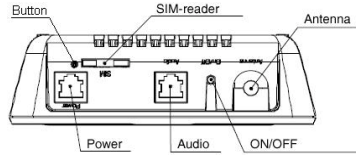


Component Identification

#	Description	Notes
1	Communication cable, controller to modem	Vision, M90/91 series: This is the programming cable for the controller. Jazz Jazz does not comprise an embedded communication port. Add-on ports are available by separate order. Use the communication cable supplied with the Add-on port
2	9 pin male adapter p/n MJ10-22-CS76	
3	9-pin RS232 port	Located on modem.
4	LED	
5	Power supply cable	
6	End of power supply cable	Orange wire + striped orange & white wire—positive, blue wire—negative.
7	SIM card drawer	See page 2.
8	GSM antenna	
9	GSM antenna connector	Located on modem

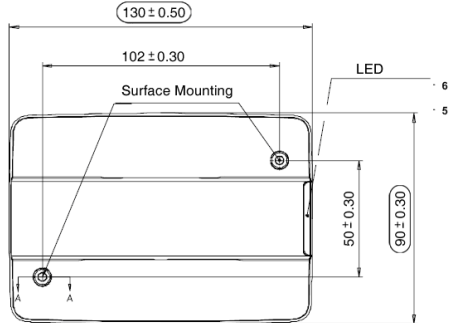
SIM Card Drawer

To open the SIM card drawer:
Turn off the power, then press the yellow button with the point of a pen or similar object.



Mounting

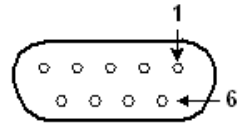
Screw the modem to a flat surface using the two holes shown to the right.



Modem RS232 port pin-out

D-type 9 pin female connector:

Pin	Description	Direction
1	DCD (Data Carrier Detect)	O
2	RxD (Receive Data)	O
3	TxD (Transmit Data)	I
4	DTR (Data Terminal Ready)	I
5	GND (Signal Ground)	-
6	DSR (Data Set Ready)	O
7	RTS (Request to Send)	I
8	CTS (Clear To Send)	O
9	RING (Ring Indicator)	O



LED: Status Indication

The blue LED indicates the modem's status according to the following table.

Modem is:

Switched on

Switched off, or no power

Not connected to network, not searching for network, not finding SIM card, finds no PIN entered.

LED Status

Flashes every 3 seconds

OFF

Flashes every 0.5 seconds

Technical Specifications

Modem

Power voltage range 8 - 30VDC

Average supply current (typical)

Working Mode	@12V	@30V
Idle:	36mA	21mA
Talk:	184mA	82mA
Data GPRS 1Tx/4Rx	173mA	77mA
Data GPRS 2Tx/3Rx Power reduction =3dB	248mA	108mA
Data GPRS 4Tx/1Rx Power reduction = 6dB	330mA	140mA

Status indication Blue LED - see page 2

SIM card 3V and 1.8V SIM card

GSM frequency 850/900/1800/1900 MHz

Mounting method Surface mounting. See page 2

Weight <190g (6.70 oz.)

Dimensions 130 x 90 x 38mm (5.11" x 3.54" x 1.5")

Operational temperature -30 to 70°C (-22 to 158°F)

Storage temperature -40 to 85°C (-40 to 185°F)

Antenna connector type SMA female

Antenna

Antenna frequency Quad band GSM:850/900/1800/1900 MHz

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