





















Cinterion Wireless Modules Product Family

Product	M2M Evolution						
	EES3	EGS5	EGS3	BGS3	MC75i	TC65i	TC63i
	EDGE	Java™	GPRS	GPRS	EDGE	Java™	GPRS
							
Frequency Range	Quad-Band GSM/GPRS/EDGE	Quad-Band GSM/GPRS	Quad-Band GSM/GPRS	Quad-Band GSM/GPRS	Quad-Band GSM/GPRS/EDGE	Quad-Band GSM/GPRS	Quad-Band GSM/GPRS
Embedded processing		Java™				Java™	
GPS							
Dimensions	33.9x29.6x3.2mm	33.9x29.6x3.2mm	33.9x29.6x3.2mm	33.9x29.6x3.2mm	33.9x35x3.3mm	33.9x35x3.3mm	33.9x35x3.3mm
Temperature Range	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +75°C	-40°C to +75°C	-40°C to +75°C
Voice	•	•	•	•	•	•	•
Data Transmission							
HSDPA							
UMTS							
EDGE	Class 12				Class 12		
GPRS	Class 12	Class 12	Class 12	Class 10	Class 12	Class 12	Class 12
CSD	•	•	•	•	•	•	•
SMS	•	•	•	•	•	•	•
Fax	•	•	•	•	•	•	•
TCP/IP connectivity	•	•	•	•	•	•	•
Interfaces							
Antenna Connector	via LGA pad	via LGA pad	via LGA pad	via LGA pad	U.FL-R-SMT	U.FL-R-SMT	U.FL-R-SMT
Antenna Solder Pad	via LGA pad	via LGA pad	via LGA pad	via LGA pad	•	•	•
Board-to-Board Connector					80-pin	80-pin	80-pin
Surface mounting	LGA	LGA	LGA	LGA			
Multi SIM interface	•	•	•	•	•	•	•
Audio analog/digital	2x/1x	2x/1x	2x/1x	2x/1x	2x/1x	2x/1x	2x/1x
Serial interfaces	2x	2x	2x	2x	2x	2x	2x
USB	•	•	•	•	•	•	•
I2C bus	•	•	•	•	•	•	•
SPI bus		•				•	
ADC/DAC		2x/1x				2x/1x	
Multiple GPIO's (digital)		•				•	
Approvals							
R&TTE, GCF	•	•	•	•	•	•	•
US approvals (FCC, UL, IC, PTCRB)	•	•	•	•	•	•	•
Japanese approvals (Jate, Telec)							
CE	•	•	•	•	•	•	•
Local operator certifications	•	•	•	•	•	•	•
e-mark							
Special features							
Over-the-air update		•				•	
RLS-Monitor (Jamming Detection)	•	•	•	•	•	•	•
Advanced Temperature Management	•	•	•	•	•	•	•
NDIS driver							
RIL driver	•		•	•	•		
Multiplexer driver for Microsoft Windows	•	•	•	•	•		
Character framing	7E1 & 8E1	7E1 & 8E1	7E1 & 8E1	7E1 & 8E1	7E1 & 8E1	7E1 & 8E1	7E1 & 8E1
SIM Access Profile	•	•	•	•	•	•	•
Advanced Automotive features							
IMDS listed & GASDL compliant							
Environmental regulations							
RoHS compliant	•	•	•	•	•	•	•
WEEE compliant							

Cinterion Wireless Modules Product Family

Product Family	M2M Value			M2M Advanced			
	MC55i	BG2	BGS2	HC28/HC28-J	HC25	EU3	PH8
Product	GPRS	GPRS		HSDPA	HSDPA	HSPA+	Tracking
							
Frequency Range	Quad-Band GSM/GPRS	Dual-Band (BG2-E) Quad-Band (BG2-W) GSM/GPRS	Dual-Band (BGS2-E) Quad-Band (BGS2-W) GSM/GPRS	Tri-B. 3G (HC28) Dual-B. 3G (HC28-J) Quad-B. 2G (HC28) Dual-B. 2G(HC28-J)	Tri-Band 3G Quad-Band 2G	Dual-Band/ Tri-Band 3G Dual-Band 2G	Five-Band 3G Quad-Band 2G
Embedded processing							
GPS				●	●		●
Dimensions	35x32.5x2.95mm	26.7x31.0x3.0mm	27.6x18.8x2.7mm	33.9x50x4.5mm	33.9x50x4.5mm	33.9x44.6x5.0mm	50x33.9x3.1mm
Temperature Range	-40°C to +75°C	-40°C to +85	-30°C to +85°C	-30°C to +75°C	-30°C to +75°C	-40°C to +85°C	-40°C to +85°C
Voice	●	●	●	●	●	●	●
Data Transmission							
HSPA				HSDPA 3.6Mbps	HSDPA 3.6Mbps	HSDPA 3.6Mbps	HSDPA 14.4Mbps
UMTS				●	●	●	●
EDGE				Class 10	Class 10	Class 10	Class 12
GPRS	Class 10	Class 8/10	Class 8/10	Class 10	Class 10	Class 10	Class 12
CSD	●	●	●	●	●	●	●
SMS	●	●	●	●	●	●	●
Fax	●	●	●	●	●	●	●
TCP/IP connectivity	●	●	●			●	
Interfaces							
Antenna Connector	U.FL-R-SMT	Integrated	via LGA pad	2xU.FL-R-SMT	2xU.FL-R-SMT	U.FL-R-SMT	U.FL-R-SMT
Antenna Solder Pad	●		via LGA pad	●	●	●	●
Board-to-Board Connector	50-pin	60-pin		50-pin	50-pin	80-pin	80-pin
Surface mounting			LGA				
Multi SIM interface	●	●	●	●	●	●	●
Audio analog/digital	2x/1x	1x/-	1x/-	1x/-	1x/-	1x/1x	1x/1x
Serial interfaces	2x	2x	2x	1x	1x	1x	1x
USB				●	●	●	●
I2C bus		●					
SPI bus							
ADC/DAC		1x/1x	1x/1x			1x/-	
Multiple GPIO's (digital)		10	10			10	
Approvals							
R&TTE, GCF	●	●	●	●	●	●	●
US approvals (FCC, UL, IC, PTCRB)	●	● (BG2-W)	● (BGS2-W)	● (HC28)	●		
Japanese approvals (Jate, Telec)				●			
CE	●	●	●	●	●	●	●
Local operator certifications	●	●	●	●	●	●	●
e-mark							
Special features							
Over-the-air update							
RLS-Monitor (Jamming Detection)						●	
Advanced Temperature Management	●			●	●	●	●
NDIS driver				●	●		●
RIL driver	●		●	●	●		●
Multiplexer driver for Microsoft Windows	●		●	●	●	●	●
Character framing							
SIM Access Profile							
Advanced Automotive features							
IMDS listed & GASDL compliant							
Environmental regulations							
RoHS compliant	●	●	●	●	●	●	
WEEE compliant							

Cinterion Wireless Modules Product Family

Product Family	Automotive Products		Terminals			M2M Basic
Product	AGS3	AC75i/AC65i	TC65T	MC52iT	MC55iT	XT75/XT65
	GPRS	EDGE	JAVA Terminal	Terminal	Terminal	Tracking
						
Frequency Range	Quad-Band GSM/GPRS	Quad-Band GSM/GPRS/EDGE	Quad-Band GSM/GPRS	Dual-Band GSM/GPRS	Quad-Band GSM/GPRS	Quad-Band GSM/GPRS/EDGE
Embedded processing		JavaTM (AC65i)	JavaTM			JavaTM
GPS						•
Dimensions	33.9x29.6x3.2mm	33.9x45x4mm	90x130x39mm	65x74x33mm	65x74x33mm	34x59x3.5mm
Temperature Range	-40°C to +85°C	-40°C to +85°C	-30°C to +75°C	-30°C to +75°C	-30°C to +75°C	-30°C to +85°C
Voice	•	•	•	•	•	•
Data Transmission						
HSDPA						
UMTS						
EDGE		Class 12 (AC75i)				Class 10
GPRS	Class 12	Class 12	Class 12	Class 8	Class 10	Class 12
CSD	•	•	•	•	•	•
SMS	•	•	•	•	•	•
Fax	•	•	•	•	•	•
TCP/IP connectivity	•	•	•	•	•	•
Interfaces						
Antenna Connector	via LGA pad	Rosenberger SMP	SMA	FME	FME	U.FL-R-SMT
Antenna Solder Pad	via LGA pad					•
Board-to-Board Connector		80-pin				80-pin
Surface mounting	LGA					
Multi SIM interface	•	•				•
Audio analog/digital	2x/1x PCM	2x/1x PCM	handset interface	handset interface	handset interface	2x/1x
Serial interfaces	2x	2x	9 pin sub-D	9 pin sub-D	9 pin sub-D	1x
USB	•	•				•
I2C bus	•	•	•			•
SPI bus	•	•	•			•
ADC/DAC		2x/1x	2x/1x			2x/1x
Multiple GPIO's (digital)		•	•			•
Approvals						
R&TTE, GCF	•	•	•	•	•	•
US approvals (FCC, UL, IC, PTCRB)	•	•	•		•	•
Japanese approvals (Jate, Telec)						
CE	•	•	•	•	•	•
Local operator certifications	•	•	•	•	•	•
e-mark	•	•	•	•	•	•
Special features						
Over-the-air update		•	•			•
RLS-Monitor (Jamming Detection)	•	•	•			•
Advanced Temperature Management	•	•	•	•	•	•
NDIS driver						
RIL driver		• (AC75i)				•
Multiplexer driver for Microsoft Windows	•	• (AC75i)		•	•	•
Character framing	7E1 & 8E1	7E1 & 8E1	7E1 & 8E1			7E1 & 8E1
SIM Access Profile	•	•				•
Advanced Automotive features	•	•				
IMDS listed & GASDL compliant	•	•				
Environmental regulations						
RoHS compliant	•	•	•	•	•	•
WEEE compliant			•	•	•	