

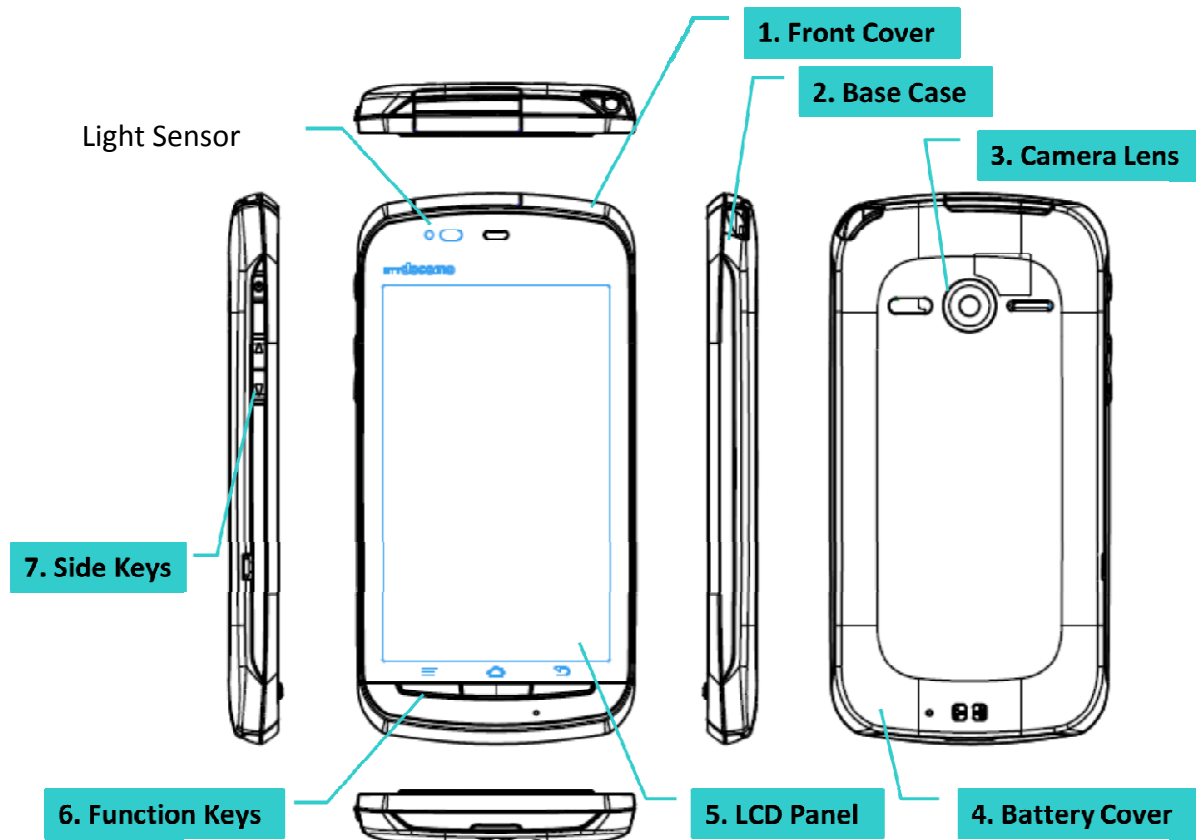
F-11D Specification

1. Definition (適用)

This Document is based on the Fujitsu Low Tier Smart Phone product requirement¹ provided by Fujitsu and apply to the IS3 (Swordfish) specification. IS3 is defined as a low tier Android smart phone for Japanese and Europe Markets. The RF interfaces for IS3 will include UMTS, WiFi and Bluetooth. The design platforms for IS3 are based on Qualcomm 8255A-0 and Google Android OS Ice Cream Sandwich (ICS) version.

2. Basic Specification (基本仕様)

2.1 ID, Outlook and Form Factor



Form Factor	Bar type
Target weight	124 g
Dimensions	119.4mm(L) x 60mm(W) x 10.85mm(T)
Product Cubage	77.7 cc

2.2 System Temperature and Humidity

1) Operating temperature/Humidity

-5~45 degree C / 0~80 %RH

2) Storage Temperature / Humidity

-25~70 degree C / 0~90 %RH

3) RF portion- operating temperature

-10~55 degree C

2.3 Hardware Specification (ハードウェア仕様)

Item	Specification
CPU	Qualcomm MSM8255A-0 SoC, CorTex A8 core The CPU clock speed is running up to 1 GHz.
MCP	4 GB eMMC, On board 1 GB LPDDR2 DRAM, 400MHz, PoP
Display	3.7" LCD 16.7M color depth, WVGA (800x480) resolution
Touch Panel	Capacitive type flat panel, 5 points multi-touch
SIM	Standard ETSI TS 102 221 SIM interface
WLAN	Broadcom WiFi Chip BCM4330 Module, support 802.11 b/g/n with the following functions supported <ul style="list-style-type: none"> ● Mobile hotspot ● AOSS ● WiFi Direct ● WPS mode
BT	Broadcom BCM4330 module, support BT3.0

FM Transmitter	FM transmitter frequency: 77.4MHz ~ 85MHz									
USB	<ul style="list-style-type: none"> ● USB 2.0 FS/HS client ● Micro-B type connector ● For both Data Sync and power charging (Earphone will be sell with EUT and EU market)									
Sensors*	Accelerator Compass Proximity (On: 2cm / Off: 2.5cm) Ambient light sensor <table border="1" data-bbox="263 674 896 920"> <thead> <tr> <th>Lux</th> <th>Brightness</th> </tr> </thead> <tbody> <tr> <td>0Lx~50Lx</td> <td>25cd/m²~105cd/m²</td> </tr> <tr> <td rowspan="2">150Lx~300Lx</td> <td>54cd/m²~200cd/m²</td> </tr> <tr> <td>80~100cd/m²</td> </tr> <tr> <td>700Lx~750Lx</td> <td>more than 100cd/m²</td> </tr> </tbody> </table> IrDA (Operation Degree: 20cm/30 deg)	Lux	Brightness	0Lx~50Lx	25cd/m ² ~105cd/m ²	150Lx~300Lx	54cd/m ² ~200cd/m ²	80~100cd/m ²	700Lx~750Lx	more than 100cd/m ²
Lux	Brightness									
0Lx~50Lx	25cd/m ² ~105cd/m ²									
150Lx~300Lx	54cd/m ² ~200cd/m ²									
	80~100cd/m ²									
700Lx~750Lx	more than 100cd/m ²									
Speaker	0.5 Watt									
Earphone	Stereo earphone set supported with insertion detection (Earphone will be sell with EUT and EU market)									
Receiver	10mWatt Based on JIS C5532									
Camera	5Mp AF CMOS camera on the back side.									
GPS	Supported									
A-GPS	Supported									
Vibrator	Yes									
LED	LED 3 color LED supported (blue, green, red)									
Battery	Lithium Ion type with 1520 mAh									
Waterproof	IPX7, IPX8 (1.5m)									

2.4 Radio Interface Specification

2.4.1 Main Interfaces (Preliminary)

Features	Description	Notes
Frequency	GSM-850 (824-849MHz; 869 – 894MHz). PCS-1900 (1850-1910MHz; 1930 – 1990MHz) WCDMA 826.4-846.6MHz	

RF system	MSM8255A-0+QTR8615 UMTS/HSDPA 800/1700/2100	
PMIC	PM8058	
Tele Service		
Coding Type	AMR-NB, FR, EFR, HR, AMR-WB	
GSM		
Voice Feature	Support MT/MO call Emergency call	
Ciphering	A5/1, A5/3	
Circuit-switching data	9.6 kbps, 14.4 kbps, 64kbps(for VT supported)	
GPRS		
DTM operation	Simple Class A	
Terminal Class	Class 12 (4Rx + 4Tx, max:5)	
Service Class	Class B	
Coding Scheme	CS1, CS2, CS3 and CS4	
Ciphering	GEA1, GEA2, GEA3	
Power Control	GSM05.08 Sec. 4	
Point to Point	Supported	
Multiple PDP	3 Primary PDP contexts 2 Secondary PDP contexts	
UMTS rel.99		
Division Duplex	FDD	
Peak PS data rate	384 kbps UL/ 384 kbps DL	
Peak CS data rate	64 kbps UL/ 64 kbps DL (64/14.4/9.6 kbps)	
HSDPA		
HS-DSCH channel	Max 10ch	
Modulation	QPSK/ 16QAM	
Category	Support HSDPA Category 6/8;	
Peak Rate	7.2 Mbps/DL (Standalone); Up to 384K bps/UL	
Modulation	16QAM, QPSK	
Logical Channels	HS-SCCH (up to 4 simultaneously) HS-DPCCH HS-PDSCH – up to 10 channels	
Data Service		
Data mode	CSD Rate Up to 9.6, 14.4 and 64kbps DTE/DCE interface via USB 2.0 full speed 3GPP 27.007 AT Command Set	

	3GPP 27.005 Short Message	
SMS	SMS Class 0, 1 and 2 GSM TS7.05 / Short Message MT/MO	
GPS	gpsOne® Gen 6 Engine support, C/No Avg 37 dB/Hz	

2.5.2 Full Feature Set (Preliminary)

Features	Description	Notes
Vocoder	Supported	
Frequency Band	GSM 850 PCS 1900 UMTS 2100/1700/800 Automatic Mode Manual band selection	
GPRS	Class B Class 12 (4Tx, 2Rx, max:5) CS1, CS2, CS3 and CS4 Launch the application with GPRS	
DTMF	Supported	
Mute	Supported	
AMR audio for multimedia usage	Supported	

Short Message Service Mobile-Originated (SMS MO)

Features	Description	Notes
SMS MO in UCS2 format	See UCS2 section for details	
Last TP-MR	Special data field in the SIM where the last message reference used is stored. This data field ensures that the references are unique.	
Message Service via GPRS (MO)	depends on carrier service	
Read and send during voice call	Support	
Read and send during data connection is active	Support	

Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Note: The country code selection is for non-US model only and is not available to all US model. Per FCC regulation, all WiFi product marketed in US must fixed to US operation channels only.

▶ RF Exposure Information (SAR)

This mobile phone meets the government's requirements for exposure to radio waves.

This phone is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

The highest SAR value for the model phone as reported to the FCC when tested for use at the ear is 0.835 W/kg and when worn on the body, as described in this user guide, is 0.898 W/kg (Body-worn measurements differ among phone models, depending upon available accessories and FCC requirements.)

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of www.fcc.gov/oet/ea/fccid after searching on FCC ID: HFS-IS3.

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines for use with an accessory that contains no metal and that positions the handset a minimum of 1 cm from the body. Use of other accessories may not ensure compliance with FCC RF exposure guidelines. If you do not use a body-worn accessory and are not holding the phone at the ear, position the handset a minimum of 1 cm from your body when the phone is switched on.