M₃ *SMART*

Ultra Light and Slim PDA
with Strong CORE and PERFORMANCE!

Smart Performance! Smart Design!

M3 SMART is the result of technological integration. All specifications such as CPU, ROM, Camera, Bluetooth, Battery and so on are upgraded to latest version and M3 SMART supports two types of operating system: Windows CE 6.0 and Windows Mobile 6.5.

Also, it even achieves IP54 sealing and 1.2M drop test with its super slim and light design which makes a perfect solution for every place you work at.

Key Features

Multi OS Support
Windows Mobile 6.5 and Windows Embedded CE 6.0 is available in M3 SMART.
These latest operating system provides intuitive user interface.

Samsung ARM v7 Coretex-A8(S5PC100) 833MHz
Powerful CPU speed with "High-Tier" guarantees faster graphic process and memory access.

1D / 2D Scanner
Superior scanner / imager application provides real-time data capture and automatic data processing so that you can expect flexibility of work and cost-efficiency.

Powerful System and Core

Maximum Data Capture

3.2M Pixels AF Camera
High resolution and auto focused functionality capture clear images of product and/or documentation.

Maximum Mobility

Multi-mode Radio
(802.11 a/b/g, 3.8G HSPA+)
Wireless data transmission through Wi-Fi, Bluetooth and HSPA+ make your business easier and provide the maximum mobility.

All Environment

Slim & Light
M3 SMART is slim and light but rugged. It can be used for ticketing and/or asset management wherever the mobile device is needed.
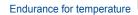
Smart Battery

Battery (Li-Ion 3.7V 2,200mA / 4,400mA)
M3 SMART's smart battery provides accurate remaining battery capacity so that the user can efficiently plan the usage of the PDA. Also, its large capacity is suitable for long time shifts.

Endurance for temperature
M3 SMART can be operated within - 20ºC ~ 60ºC and its storage temperature is -30ºC ~ 80ºC.

User Comfort

Multi-function Keypads
Multi-functional keys of QWERTY, AZERTY keypads are designed for versatile performance.
As hot keys, these are going to make the direct access be possible and increase users' working speed.

AlphaNumeric (34 keys)   QWERTY (51 keys)   AZERTY (51 keys)

Sensors
Gyro seonsor and Light sensor extends the applicable area of M3 SMART.

M3 SMART Specification

PHYSICAL CHARACTERISTICS

Dimension
Standard   141.6 mm x 69 mm x 19.7 mm, 5.5" x 2.4" x 0.7"

M3 SMART
Weight: 222 g (7.8 oz.)

141.6 mm
(5.5")

69 mm   19.7 mm
(2.7")   (0.7")

Weight (incl. battery)
Standard   222 g, 7.8 oz.
Display   2.8" QVGA TFT LCD, 240 x 320 pixels
Touch Panel Glass analog resistive touch
Battery
Main Battery

Standard Smart Battery,
Li-ion 3.7 V, 2,200 mAh

Extended Smart Battery,
Li-ion 3.7 V, 4,400 mAh (optional)

Backup Battery Li-ion 3.7 V, 150 mAh (not user accessible)
Notification   Vibration and LEDs
Keypads   AlphaNumeric, QWERTY, AZERTY

PERFORMANCE CHARACTERISTICS

Multi-Processor
CPU   Samsung Coretex-A8(S5PC100) 833 MHz
Radio   ARM 11 series
OS   Microsoft® Windows Mobile® 6.5
            Microsoft® Windows Embedded CE 6.0
Memory   RAM: 256 MB, ROM: 512 MB (CE) 1 GB (WM)
            External SD: MicroSD with SDHC (up to 32 GB)
Interfaces USB Host 1.1 / Client 1.1
            Ethernet (via accessory)
            RS232 Serial (via accessory)
Battery Performance
Standby   330 hours (standard), 660 hours (extended)
Talk time   7 hours (standard), 14 hours (extended)

GPS CHARACTERISTICS

Assisted GPS
Accuracy[1]   Position   2.5 m CEP
              SBAS   2.0 m CEP
Acquisition[1] Cold Start 29 seconds
               Warm Start 29 seconds
               Hot Start   < 1 second
Velocity limits: 515 m/s, 1000 knots

WIRELESS RADIO CHARACTERISTICS

WWAN
2G   GSM / GPRS / EDGE: Quad band
            (850 / 900 / 1800 / 1900 MHz)
3.8G (WM)   UMTS / HSPA+: Five band
            (800 / 850 / AWS / 1900 / 2100 MHz)
Bluetooth   Class II, v2.0 with EDR (WM)
            Class II, v2.1 with EDR (CE)

WIRELESS LAN CHARACTERISTICS

Bands   IEEE 802.11 a/b/g
Chipset   Atheros AR6002
Data Rate   802.11a (OFDM): 6, 9, 12, 18, 36, 48, 54 Mbps
            802.11b (DSSS): 1, 2, 5.5, 11 Mbps
            802.11g (OFDM): 6, 9, 12, 18, 24, 36, 48, 54 Mbps
Regulatory Domain
FCC   (Americas, Asia[2], Mid East[2])   MIC (TELEC)   (Japan)
ETSI   (Europe, Asia[2], Mid East[2], Africa)   KC (KCC)   (Korea)
2.4 GHz Frequency Bands
FCC   2.4 to 2.473 GHz,   ETSI   2.4 to 2.483 GHz
MIC   2.4 to 2.495 GHz,   KC   2.4 to 2.483 GHz
5 GHz Frequency Bands
FCC   5.15 to 5.35 GHz, 5.725 to 5.82 GHz
ETSI   5.15 to 5.35 GHz, 5.47 to 5.725 GHz
MIC   5.15 to 5.35 GHz
KC   5.15 to 5.25 GHz, 5.47 to 5.725 GHz, 5.725 to 5.82 GHz
2.4 GHz Operating Channels
FCC   11 (3 non overlapping)   ETSI   13 (3 non overlapping)
MIC   14 (4 non overlapping)   KC   13 (3 non overlapping)
5 GHz Operating Channels
FCC   23 non overlapping   ETSI   19 non overlapping
MIC   8 non overlapping   KC   8 non overlapping
Security
Standards   WEP, WPA, WPA2
Encryption WEP, TKIP, AES
Encryption Key Provisioning:
            Static (40 and 128 bit length)
            Pre-shared (PSK)
            Dynamic
802.1X Extensible Authentication Protocal Types:
            EAP-FAST, EAP-TLS, EAP-TTLS, PEAP-GTC,
            PEAP-MSCHAPv2, PEAP-TLS, LEAP
Certification
Wi-Fi Alliance   802.11 a / b / g, WPA Enterprise, WPA2 Enterprise
CCXv4   Cisco Compatible Extensions

USER ENVIRONMENT

Operating Temperature   -20 ºC ~ 60ºC, -4 ºF ~ 140 ºF
Storing Temperature   -30 ºC ~ 80ºC, -22 ºF ~ 176 ºF
Humidity   93% non-condensing
Drop Test   1.2 m , 4 ft. (2 drops for each side)
IP Rating   IP54
Electrostatic Discharge   +/-8 kV air discharge
Clock   Integrated real time clock (backup battery keeps
                the time info. while replacing the main battery)

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[1]   All SV @ -130 dBm.
[2]   Part of the region.

M3 SMART Specification (contd.)

DATA CAPTURE CHARACTERISTICS

1D Scanner[3] Characteristics

Light Source	650 nm visible laser diode
Scan Rate	100 scans/sec
Decode Rate	100 decodes/sec
Reading Angle	54º, effective 44º
Pitch Angle	+/- 35º
Skew Angle	+8º ~ +50º, -8º ~ -50º
Tilt Angle	+/- 20º
Ambient fluorescent light rejection	4,000 lux max.
Ambient white light rejection	4,000 lux max.
Ambient direct sun light rejection	8,000 lux max.
Laser Safety Class	IEC825, Class I laser product
EMC	EN 55022, EN 55024

1D Scanner

No Scanner verion is also available.

2D Imager[3] Characteristics

Focal Point	17.8 cm, 7"
Image Sensor	752 x 480 CMOS seonsors
Motion Tolerance	10.2 cm, 4" per second
Rotational Sensitivity	360º
Viewing Angle	+/- 40º
Ambient Light	Total darkness to 100,000 lux (full sunlight)
Illumination LEDs	626 nm +/- 30 nm
Aiming	LEDs: 526 nm +/- 30 nm
	Laser: 650 nm +/- 10 nm

2D Scanner

Camera Characteristics

Resolution	3.2 M pixel
Flash	User controllable LED flash
Focus	Auto focus

GYRO SENSOR

Orientation	3-Axis orientation (XYZ)
Sample Rate	Max. 120 smaples per second
Output Type	Digital Output (I^{2}C)
Max Acceleration	10,000 g (all axes, 100 µs)

LIGHT SENSOR

Light Detection	3-Axis orientation (XYZ)
Output Type	Digital Output (I^{2}C)
Features	-50 Hz / 60 Hz light noise reject function

Certifications and Partners

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[3]   Characteristics are based on the default option.