

TECHNICAL MANUAL

CELL PHONE OB-588

ALTRON



Contents

1. TECHNICAL CHARACTERISTICS OF THE OB-588 CELLULAR.....	3
2. MODEL BRAND AND EQUIPMENT DESCRIPTION:.....	5
3. EQUIPMENT MANUFACTURER:.....	6
4. OB-588 CELL PHONE OPERATION BANDS.....	6

5.	ALTRON OB-588 CELL PHONE OPERATING FREQUENCY RANGE.....	7
6.	TYPE OF MODULATION BY BAND OF THE CELL PHONE OB-588.....	8
7.	MAXIMUM TRANSMISSION POWERS PER BAND.....	8
8.	ANTENNAS GAIN BY FREQUENCY RANGE.....	8
9.	WIRELESS COMMUNICATION STANDARDS.....	9
10.	SPECIFIC ABSORPTION RATE SAR.....	9
11.	TAC NUMBER.....	10
12.	CELL-BROADCAST SUPPORT FOR OB-588.....	11

1. TECHNICAL CHARACTERISTICS OF THE OB-588 CELLULAR.

The cellular altron OB-588 has the following characteristics:

Processor	
Processor architecture	Cortex™ A7 quad-core
Processor family	Spreadtrum
Processor frequency	up to 1.3GHz
Processor model	SC7731E
Number of cores	Quad Core
Memory	
Internal memory	1GB
Storage	16GB
Screen	
Diagonal screen	5.5inch
Touch screen	✓
Aspect ratio	18: 9
Screen resolution	480 x 960 pixels
LED backlight	✓
Touch technology	Multi-touch
Touch screen type	Capacitive
Audio	
Built-in speakers	✓
Built-in microphone	✓
Ports and interfaces	
Headphones	3.5 mm
Micro-USB 2.0 ports quantity	one
Headphone output	✓
Weight and measurements	
High	148.9 mm
Width	71.3 mm
Weight	160 g

Depth	9.3 mm
Energy	
Amperage adapter	2,000 mA
Adapter voltage	5 V
Connectivity	
2 G bands	✓
3 G bands	✓
Supported 2G bands	850, 1900 MHZ
Supported 3G bands	850, 1900 MHZ
Supported 4G bands	✗
Bluetooth	✓
Dual SIM support	✓
Wi-Fi standard	Wi-Fi (802.11b / g / n)
2G standards	GSM
3G standards	WCDMA
4G standards	✗
Bluetooth version	4.0
Storage Media	
Internal storage	16GB GB
Card reader	✓
Compatible memory cards	MicroSD (TransFlash)
Storage unit	Flash
Camera	
Front camera	✓
Rear camera	✓
flash	✓
Video Recording	✓
Front camera resolution (numeric)	2.0 MP
Rear camera resolution (numeric)	8.0 MP
Flash type	LED
Package content	

AC adapter included	✓
Includes keyboard	✗
User manual	✓
Messenger Service	
E-mail	✓
Drums	
Battery capacity	2000 mAh
Battery Technology	Lithium
Battery voltage	3.7 V DC
Characteristics	
Speaker	✓
Caller ID	✓
voice call	✓
Video call	✓
Design	
Product color	Black, Blue, Red
Form factor	Board
Type of device	5.5inch 18: 9 Ration Smartphone
Performance	
Assisted GPS (A-GPS) function	✓
software	
Platform	Android
Installed operating system	Android 11 (Go edition)
Supported multimedia formats.	
Supported audio formats	APE, FLAC, MP3, WAV, WMA
Supported image formats	BMP, GIF, JPEG XR, PNG, TIF
Supported video formats	AVI, H.264, MKV, MPEG1, MPEG2, RM, RMVB

2. MODEL BRAND AND EQUIPMENT DESCRIPTION:

The OB-588 cell phone is imported under the Trademark registered in INDECOPI ALTRON.

Main features:

- Equipment model: OB-588
- Brand Name: ALTRON
- Trade Name: OB-588
- Hardware Version: J517C_31EFMB_D3V1.0
- Software Version: Altron_OB588_V1.0_20210305
- Device Category: Portable.
- Antenna type: Internal antenna.
- Manufacturer: OBO ELECTRONICS GROUP LIMITED

3. EQUIPMENT MANUFACTURER:

The ALTRON OB-588 cell phone has as a country of origin CHINA and has been manufactured and designed in the company

"OBO ELECTRONICS GROUP LIMITED"

Located in:

Zhengqilong Building, Gushu 108, Xi'xiang, Bao'an district, shenzhen, China.

Manufacturer website:

<http://www.oboeg.com/>

Contact email: **oboeg@oboeg.com**.

4. OB-588 CELL PHONE OPERATION BANDS

The Altron OB-588 cell phone is designed to operate in the following cell phone bands:

2G under the GSM Standard, with the following frequency ranges:

- GSM 850
- PCS 1900

3G under the WCDMA (UMTS) standard, Universal Mobile Telecommunications System with the following Frequency ranges:

- UMTS Band II
- UMTS Band V

WIFI 2.4G wireless communication standard:

- 802.11b
- 802.11g
- 802.11n (20)

Communication standard Bluetooth_V4.1, modulation mode:

- GFSK
- $\pi / 4$ -DQPSK
- 8-DPSK

5. ALTRON OB-588 CELL PHONE OPERATING FREQUENCY RANGE

The operating frequency range of the ALTRON OB-588 cell phone is detailed in the following table:

BAND	TX TRANSMISSION FREQUENCY RANGE	RX RECEPTION FREQUENCY RANGE
GSM 850 MHZ BAND	820 MHZ - 850 MHZ	869 MHZ - 894 MHZ
BAND PCS 1900 MHZ	1850 MHZ - 1910 MHZ	1930 MHZ - 1990 MHZ
WCDMA FDD Band II	1850 MHZ - 1910 MHZ	1930 MHZ - 1990 MHZ
WCDMA FDD Band V	824MHZ - 849MHZ	869 MHZ - 894 MHZ

BLUETOOTH	FREQUENCY RANGE OF OPERATION
BLUETOOTH VERSION 4.1	2402MHZ ~ 2480MHZ

2.4G WIFI	FREQUENCY RANGE OF OPERATION
802.11b, 802.11g, 802.11n (20)	2412MHZ ~ 2462MHZ

6. TYPE OF MODULATION BY BAND OF THE CELL PHONE OB-588.

The OB-588 cell phone uses the following types of modulation in each of its operating bands:

BAND	MODULATION
2G GSM 850-1900MHZ	GMSK
WCDMA UMTS BAND II - BAND V	QPSK
BLUETOOTH V4.1	GFSK, π / 4-DQPSK, 8-DPSK

7. MAXIMUM TRANSMISSION POWERS PER BAND

The transmission powers per band of the OB-588 cell phone, as in all mobile terminals, can vary depending on the distance to a base station.

The maximum transmission values per band of the ob-588 cell phone are shown in the following table:

MAXIMUM TRANSMISSION POWER		
	dBm	Watts
GSM 850 MHZ BAND	31.89dBm	1.54525444
BAND PCS 1900 MHZ	28.14dBm	0.651628394
UMTS WCDMA FDD Band II	22.34dBm	0.171395731
UMTS WCDMA FDD Band V	22.71dBm	0.186637969
Bluetooth	7.118 dBm	0.005149914
WIFI 802.11b	13.35dBm	0.021627185
WIFI 802.11g	10.82dBm	0.012078138
WIFI 802.11n (20)	10.00dBm	0.01

Source: Sar report Ob-588.

8. ANTENNAS GAIN BY FREQUENCY RANGE.

ANTENNA GAIN	
	dBi
GSM 850 MHZ BAND	-0.3dBi
BAND PCS 1900 MHZ	0.5 dBi
UMTS WCDMA FDD Band II	0.5dBi
UMTS WCDMA FDD Band V	-0.3dBi
Bluetooth Ver 4.1	1.2dBi
WIFI 802.11bgn	1.5dBi

9. WIRELESS COMMUNICATION STANDARDS.

The Altron OB-588 cell phone has the following wireless communication standards

- Bluetooth version 4.1

Short-range radio technology that enables communication and data synchronization between personal computers, PDAs, mobile phones, and peripheral devices.

- Wifi 802.11 b / g / n.

10. SPECIFIC ABSORPTION RATE SAR.

Specific Absorption Rate (SAR) is the coefficient or measure of the amount of RF energy that is absorbed by tissues in the human body when using equipment that emits radio frequencies, for example, a mobile phone, in watts per kilogram (W / kg), that is, the amount of watts of energy absorbed by the human body for each kilogram of body mass, specific for a given source of electromagnetic energy.

It measures the power of radiation that penetrates the human body and depends on the transmission power of the equipment, the antenna it uses, etc.

SAR is the dosimetric measurement used to establish limits on the emission of radiation by non-ionizing electromagnetic fields.

The ALTRON OB-588 CELLULAR was designed in accordance with the radio frequency exposure requirements established by the Federal Communications Commission (United States).

The specific absorption rate (SAR) limit adopted by the United States is $1.6 W / kg$ on average per gram of tissue. The maximum SAR value for this device reported to the FCC meets this limit.

The following table is a detail of the different SAR values obtained in the AGC laboratory located at:

2 / F., Building 2, Sanwei Chaxi Industrial Park, Sanwei Community, HangCheng Street, Baoan District, Shenzhen, Guangdong, China.

Tel: + 86-755 2523 4088, E-mail: agc@agc-cert.com.

Report No.: AGC08533210301FH01

Page 5 of 92

1. SUMMARY OF MAXIMUM SAR VALUE

The maximum results of Specific Absorption Rate (SAR) found during testing for EUT are as follows:

Frequency Band	Highest Reported 1g-SAR(W/Kg)		SAR Test Limit (W/Kg)
	Head	Body-worn(with 10mm separation)	
GSM 850	0.047	0.122	1.6
PCS 1900	0.096	0.188	
UMTS Band II	0.110	0.216	
UMTS Band V	0.065	0.103	
WIFI 2.4G	0.170	0.106	
Simultaneous Reported SAR	0.325		
SAR Test Result	PASS		

11. TAC NUMBER

The TAC is an 8-digit number that identifies a particular model of mobile phone whether it is GSM, UMTS or another wireless network that supports the IMEI code.

The Altron OB-588 cell phone has a valid TAC issued by the GSMA ASOCIATION.

TAC: 35612556

TAC Holder: METREON SAC

Brand Name: ALTRON

Model Name: OB-588

Marketing Name: OB-588

Quantity of SIM Slots on the device: 2

12. CELL-BROADCAST SUPPORT FOR OB-588.

The alert messaging service also called CELL-BROADCAST is duly enabled on the OB-588 cell phone with the various channels requested by the Ministry of Transport and Communications of Peru MTC.

UTILIZATION	CHANNELS
	Main configuration
Local Alert	4370
Local Alert (other language)	4383
Information	4382
Test	4380
Exercise / Drill	4381
Reserved	4396, 4397, 4398, AND 4399

Colin Sum
Legal representative

For and on behalf of
OBO ELECTRONICS GROUP LIMITED
 歐博電子有限公司

 Authorized Signature(s)

