

A20 3G controller Instructions

Introduction:

A20 3G controller is the first type that integrates the 3G wireless communication function in control system. With features of low cost, simplified installation, convenient setup and powerful software, this type of controllers have been accepted and used by many advertisement companies in domestic and overseas. They installed this type of controller in communities or streets to display advertisements.

In software part, with the help of Led Data Server software, customer can realize centralized management for all of controllers and check controller's offline/online status at any time.

Lastly, speed is very important in nowadays, this 3G controller can transfer big file in high speed.

Traits of 3G controller:





- **Best solution for outdoor led display, no need to do wiring work, no distance limitation but enjoy centralized management and high transfer speed.**
- **Industrial modem, working temperature range from -30°C to +80°C**
- **Integrates wireless modem, reduce cost and easy to operate**
- **Xixun Company provides the led data server center so customer no needs to do this work.**
- **Technical support and maintenance work become much easier; make the complicated system become simpler.**
- **Help customer to build own Led data server for large quantities.**
- **Support wireless 3G, GPRS and wire internet, customer can choose what they want.**

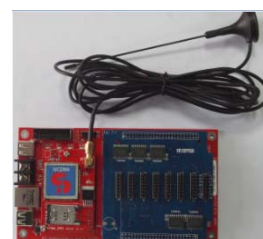
Mainly application: traffic guidance information system, outdoor advertisement issue system, vehicle-mounted led display and so on.

Tips: customer should collect following information before buying 3G controller:

- 1. Which kind of 3G is available in led display place, is it WCDMA, CDMA2000 or others?**
- 2. Frequency of 3G**
- 3. Telecom operator in local place?**

Please refer to attachment in detail.

Controller type	3G type	3G system	Frequency	Country	3G modem label
A20W-E	WCDMA-E	WCDMA	3G: 900/2100MHz GPRS: 850/900/1800/1900 MHz	China Union, Africa, Europe, Oceania, Asia, (Except J type)	WCDMA 
A20W-A	WCDMA-A	WCDMA	3G: 850/1900MHz GPRS: 850/900/1800/1900 MHz	North America, South America, United States, Canada, Mexico	WCDMA-A  America 850/1900MHz
A20W-J	WCDMA-J	WCDMA	3G: 850(800)/2100MHz GPRS: 850/900/1800/1900 MHz	Japan, Thailand, Israel, Philippine and Brazil	WCDMA-J  Japan 850/2100MHz
A20E-C	EVDO-C	CDMA2000 EVDO	3G: 800/1900MHz	China Telecom	CDMA2000 EVDO 

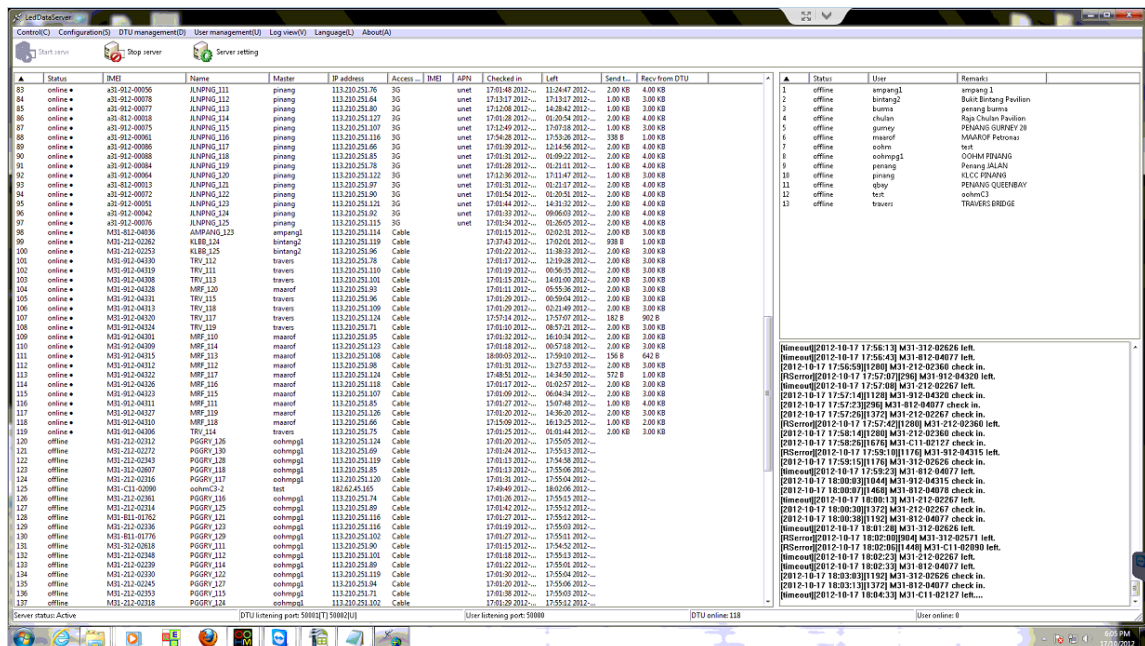
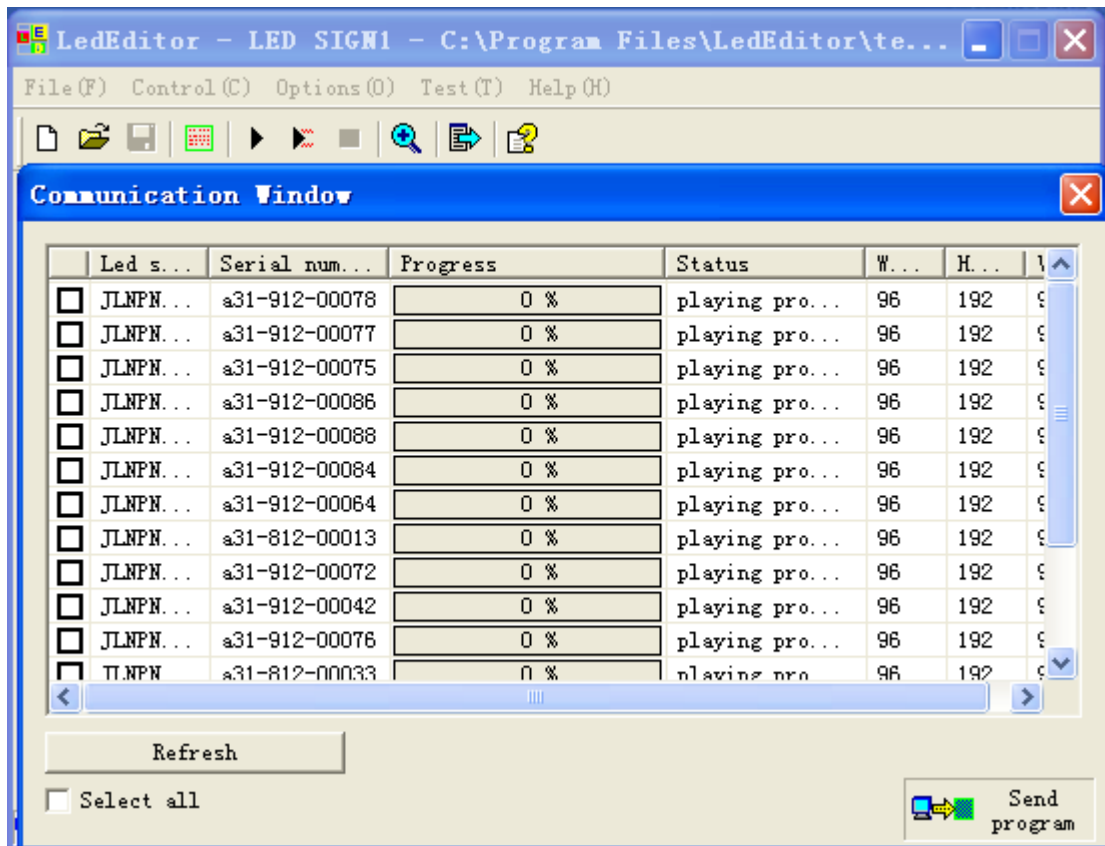


Hardware:

- 1. A-series controller, 3G antenna SIM card, micro SIM card holder (for foreign countries customer)**
- 2. 3G/2G SIM card**
- 3. own led data server center (only for customer who need to build own led data server center)**

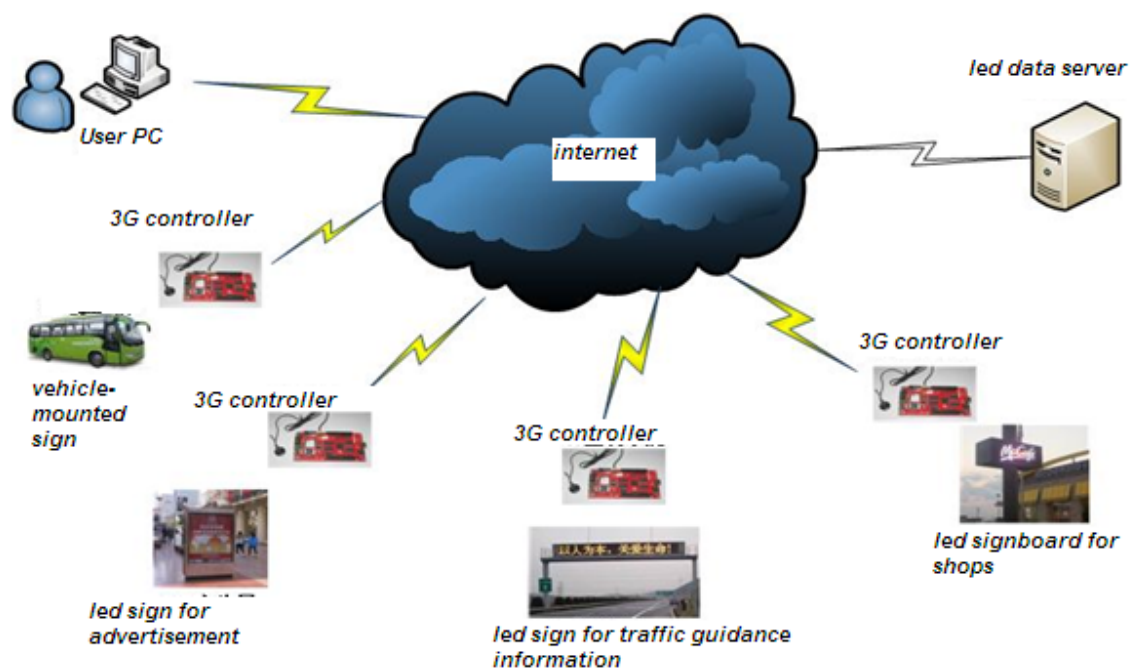
Software:

1. Led Editor
2. LedSet2.0
3. Led Data Server
4. Static IP address or DNS (only for customer who need to build own led data server center)



System principle instruction:

1. Controller accesses to internet via ADSL, wireless 3G or GPRS.
2. User PC with Led Editor software can remote control the led screen when access to internet at any time. Users will not interfere with each other.
3. Led Data Server center is the hub to exchange controller and user software information.



Two methods to build Led data server:

Method 1: provided by Xixun Xompany :

1. Provide user name and password.
2. Provide the server's domain name and port, server monitor controller via 50001 port while monitor software via 50000 port.

Method2: build server by customer itself

Please refer to "How to build up LED data server" document.

Table 1 A20 controller physical parameters

Normal parameters	
Working voltage(V)	4.5~6
Maximum working current(A)	1
Maximum power consumption (W)	5
Working temperature(°C)	-20~+60
Controller size (cm)	17.5(L)×9.6(W)×2.5(H)
Weight (g)	138

Table 2 A20 controller technical parameters

Parameter/name	3G controller
Type	A20
3G system	WCDMA/GPRS/CDMA2000 EVDO
SIM card	Plug SIM card in directly
Maximum pixels	320x128 (full color)
HUB	Support 1 standard hub
Flash	500MB
Gray level	4096
Video format	Support AVI, WMV, MPG, MOV, DAT, VOB, MP4 and FLV
Audio	USB sound card (optional)
Sensor	Support temperature and humidity, auto adjust brightness and choose program by infrared remote
Animation format	Support GIF and SWF
Image format	Support BMP, JPG, GIF, WMF and ICO
Text	Support single and multi-line text, static text
Time	Support digital and analog clock
Partition	Support partition randomly
Display in schedule	Support
Software	LEDEditor/LEDSet2.0/LedDataServer

ATTENTION:

1. Strictly prohibit plugging and removing SIM card with power on.
2. Strictly prohibit plugging and removing HUB with power on.
3. Strictly prohibit plugging and removing antenna with power on.
4. Try not to touch the IC and pins so that to avoid the electrostatic damage.

Attachment: frequency of 3G in each country, just for reference, need to confirm with customer when buy controller.

Africa (非洲)			
Operator (运营商)	Country (国家)	Launch Date (推出时间)	Frequency (频率) (MHz)
Emtel	Mauritius(毛里求斯)	Nov-04	2100
Cellplus	Mauritius(毛里求斯)	Mar-06	2100
Vodacom	South Africa (南非)	Dec-04	2100
MTN	South Africa (南非)	Jun-05	2100
MTC	Namibia (纳米比亚)	Dec-06	2100
Powercom	Namibia (纳米比亚)	Mar-07	2100
Unitel	Angola (安哥拉)	Jun-07	2100
Globacom	Nigeria (尼日利亚)	Dec-07	2100
Etisalat	Egypt (埃及)	May-07	2100
Vodafone	Egypt (埃及)	May-07	2100
Safaricom	Kenya (肯尼亚)	Dec-07	2100
Libyana	Libya (利比亚)	Sep-06	2100
Meditel	Morocco (摩洛哥)	Apr-07	2100
Maroc Telecom	Morocco(摩洛哥)	Dec-07	2100
Airtel	Seychelles (塞舌尔群岛)	Dec-06	2100
Areeba	Sudan (苏丹)	2006	2100
Vodacom	Tanzania (坦桑尼亚)	Feb-07	2100
Uganda Telecom	Uganda (乌干达)	Nov-07	2100
Econet Wireless	Zimbabwe (津巴布韦)	Dec-07	2100
Mobinil	Egypt (埃及)	Sep-08	2100
Asia (亚洲)			
Operator (运营商)	Country (国家)	Launch Date (推出时间)	Frequency (频率) (MHz)
BSNL Mobile	India (印度)	2009	2100
MTNL DOLPHIN	India (印度)	2008	2100
Mobitel	Iraq (伊拉克)	2007	2100
Etisalat	United Arab Emirates (阿联酋)	Jan-04	2100
Du	United Arab Emirates (阿联酋)	Feb-07	2100
Nepal Telecom	Nepal (尼泊尔)	May-07	2100
Mobilink	Pakistan (巴基斯坦)	2009	2100
Ufone	Pakistan (巴基斯坦)	2009	2100
Warid	Pakistan (巴基斯坦)	2009	2100
Telenor (Pakistan)	Pakistan (巴基斯坦)	2009	2100
Paktel	Pakistan (巴基斯坦)	2009	2100
GrameenPhone	Bangladesh (孟加拉国)	2009	2100
Warid	Bangladesh (孟加拉国)	2009	2100
3	Hong Kong (香港)	Jan-04	2100
CSL	Hong Kong (香港)	Dec-04	2100
PCCW Mobile	Hong Kong (香港)	Jul-06	2100
Smartone-Vodafone	Hong Kong (香港)	Dec-04	2100
Singapore Telecommunications	Singapore (新加坡)	Feb-05	2100
StarHub	Singapore (新加坡)	Apr-05	2100
MobileOne	Singapore (新加坡)	Feb-05	2100
Maxis Communications	Malaysia (马来西亚)	Jul-05	2100
Celcom	Malaysia (马来西亚)	May-05	2100
DiGi	Malaysia (马来西亚)	Jun-08	2100
SMART	Philippines (菲律宾)	May-06	850/2100
Globe	Philippines (菲律宾)	May-06	2100
Digitel	Philippines (菲律宾)	Jul-06	2100
Telkomsel	Indonesia (印度尼西亚)	14-Sep-06	2100
Excelcomindo	Indonesia (印度尼西亚)	21-Sep-06	2100
Indosat	Indonesia (印度尼西亚)	Nov-06	2100

A-series controller product specification

3	Indonesia (印度尼西亚)	Dec-06	2100
Dialog Telekom	Sri Lanka (斯里兰卡)	Aug-06	2100
FarEasTone	Taiwan (台湾)	13-Jul-05	2100
Chunghwa Telecom	Taiwan (台湾)	26-Jul-05	2100
Taiwan Cellular Corporation	Taiwan (台湾)	Oct-05	2100
VIBO Telecom	Taiwan (台湾)	Dec-05	2100
SK Telecom	South Korea (韩国)	Dec-03	2100
KTF	South Korea (韩国)	Dec-03	2100
Geocell	Georgia (格鲁吉亚)	Dec-06	2100
Magticom	Georgia (格鲁吉亚)	Jul-06	2100
NTT DoCoMo	Japan (日本)	Oct-01	800/1700/2100
Softbank	Japan (日本)	Dec-02	2100
eMobile	Japan (日本)	Mar-07	1700
Zain	Kuwait (科威特)	Mar-06	2100
Wataniya Telecom	Kuwait (科威特)	Mar-06	2100
Q-TEL	Qatar (卡塔尔)	Jul-06	2100
Mobily	Saudi Arabia (沙特阿拉伯)	Jun-06	2100
Al Jawwal	Saudi Arabia (沙特阿拉伯)	Jun-06	2100
Zain	Saudi Arabia (沙特阿拉伯)	Feb-08	2100
Josa Babilon Mobile	Tajikistan (塔吉克斯坦)	Jun-05	2100
Indigo Tajikistan	Tajikistan (塔吉克斯坦)	Sep-06	2100
Tacom	Tajikistan (塔吉克斯坦)	Sep-06	2100
TT Mobile	Tajikistan (塔吉克斯坦)	Jun-05	2100
Batelco	Bahrain (巴林)	2006	2100
Zain	Bahrain (巴林)	Dec-03	2100
B-Mobile	Brunei (文莱)	Sep-05	2100
Shinawatra	Cambodia (柬埔寨)	Oct-07	2100
Mobitel	Cambodia (柬埔寨)	Oct-06	2100
Cellcom	Israel (以色列)	Jun-04	2100
Orange	Israel (以色列)	Nov-04	2100
CTM	Macau (澳门)	Jun-07	2100
3	Macau (澳门)	Oct-07	2100
Mobitel	Sri Lanka (斯里兰卡)	Dec-07	2100
Spacotel	Syria (叙利亚)	2008	2100
Syriatel	Syria (叙利亚)	2008	2100
Advanced Info Service	Thailand (泰国)	May-08	900
True Move	Thailand (泰国)	Jan-09	850
China Unicom	China (中国)	May-09	2100
Pelephone	Israel (以色列)	Feb-09	850/2100
Oceania (大洋洲)			
Operator (运营商)	Country (国家)	Launch Date (推出时间)	Frequency (频率) (MHz)
Telstra	Australia (澳大利亚)	Oct-06	850/2100
3	Australia (澳大利亚)	May-03	2100
Optus	Australia (澳大利亚)	Nov-05	900/2100
Vodafone	Australia (澳大利亚)	Oct-05	900/2100
Vodafone	New Zealand (新西兰)	Aug-05	900/2100
Telecom	New Zealand (新西兰)	May-09	850/2100
2degrees	New Zealand (新西兰)	Aug-09	2100
Europe (欧洲)			
Operator (运营商)	Country (国家)	Launch Date (推出时间)	Frequency (频率) (MHz)
Turkcell	Turkey (土耳其)	Jul-09	2100
Avea	Turkey (土耳其)	Jul-09	2100
Vodafone Turkey	Turkey (土耳其)	Jul-09	2100
Telefónica 02	United Kingdom (英国)	Mar-05	2100
3	United Kingdom (英国)	Mar-03	2100
T-Mobile	United Kingdom (英国)	May-04	2100
Vodafone	United Kingdom (英国)	Nov-04	2100
Orange	United Kingdom (英国)	Dec-04	2100

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Mobitel	Slovenia (斯洛文尼亚)	Dec-03	2100
Si.mobil	Slovenia (斯洛文尼亚)	Sep-07	2100
Tušmobil	Slovenia (斯洛文尼亚)	Sep-08	900/2100
T-2	Slovenia (斯洛文尼亚)	Jun-08	2100
VIPnet	Croatia (克罗地亚)	Oct-05	2100
T-Mobile	Croatia (克罗地亚)	Jun-06	2100
Tele2	Croatia (克罗地亚)	2007	2100
CYTA Mobile	Cyprus (塞浦路斯)	Mar-06	2100
Orange	Spain (西班牙)	Nov-04	2100
Movistar	Spain (西班牙)	May-04	2100
Vodafone	Spain (西班牙)	May-04	2100
Yoigo	Spain (西班牙)	Dec-06	2100
Era GSM	Poland (波兰)	Apr-06	2100
Plus GSM	Poland (波兰)	Sep-04	2100
Orange	Poland (波兰)	Jun-06	2100
Play	Poland (波兰)	Mar-07	2100
Elisa	Finland (芬兰)	Nov-04	900/2100
TeliaSonera	Finland (芬兰)	Oct-04	2100
DNA	Finland (芬兰)	Dec-05	900/2100
Alands Mobiltelefon	Finland (芬兰)	Jun-06	2100
Mobile telephony of Serbia	Serbia (塞尔维亚)	27-Dec-06	2100
Telenor	Serbia (塞尔维亚)	Mar-07	2100
VIP Mobile	Serbia (塞尔维亚)	Jul-07	2100
TDC Mobil	Denmark (丹麦)	Nov-05	2100
Telenor	Denmark (丹麦)	Sep-06	2100
3	Denmark (丹麦)	Oct-03	2100
TeliaSonera	Denmark (丹麦)	Dec-07	2100
STA	Andorra (安道尔)	Dec-06	2100
TeliaSonera	Sweden (瑞典)	Mar-04	2100
3	Sweden (瑞典)	May-03	2100
Tele2	Sweden (瑞典)	Mar-04	2100
Telenor	Sweden (瑞典)	Jul-04	2100
ONE	Austria (奥地利)	Dec-03	2100
3	Austria (奥地利)	May-03	2100
Mobilkom Austria	Austria (奥地利)	Apr-03	2100
T-Mobile	Austria (奥地利)	Dec-03	2100
Orange	Belgium (比利时)	Jun-08	2100
Proximus	Belgium (比利时)	Sep-05	2100
Mobistar	Belgium (比利时)	Dec-06	2100
Vivatel	Bulgaria (保加利亚)	Apr-07	2100
Globul	Bulgaria (保加利亚)	Jun-06	2100
M-TEL	Bulgaria (保加利亚)	Mar-06	2100
Telefónica 02	Czech Republic (捷克共和国)	Dec-05	2100
T-Mobile	Czech Republic (捷克共和国)	Dec-06	2100
Elisa	Estonia (爱沙尼亚)	Jun-06	2100
Bravocom	Estonia (爱沙尼亚)	Jul-06	2100
EMT	Estonia (爱沙尼亚)	Oct-05	2100
Tele2	Estonia (爱沙尼亚)	Nov-06	2100
Orange	France (法国)	Dec-04	2100
SFR	France (法国)	Nov-04	2100
Bouygues Télécom	France (法国)	Apr-07	2100
E-Plus	Germany (德国)	Aug-04	2100
Telefónica 02	Germany (德国)	Jul-04	2100
T-Mobile	Germany (德国)	May-04	2100
Vodafone	Germany (德国)	May-04	2100
Cosmote	Greece (希腊)	May-04	2100
Vodafone	Greece (希腊)	Aug-04	2100
TIM	Greece (希腊)	Jan-04	2100

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Wave Telecom	Guernsey (格恩西岛)	Jul-04	2100
Pannon GSM	Hungary (匈牙利)	Oct-05	2100
T-Mobile	Hungary (匈牙利)	Aug-05	2100
Vodafone	Hungary (匈牙利)	Jun-06	2100
Siminn	Iceland (冰岛)	Sep-07	2100
3	Ireland (冰岛)	Jul-05	2100
Meteor	Ireland (冰岛)	Sep-08	2100
Telefónica 02	Ireland (冰岛)	Mar-05	2100
Vodafone	Ireland (冰岛)	Nov-04	2100
Manx Telecom	Isle of Man (马恩岛)	Nov-05	2100
3	Italy (意大利)	Mar-03	2100
TIM	Italy (意大利)	May-04	2100
Vodafone	Italy (意大利)	May-04	2100
Wind	Italy (意大利)	Oct-04	2100
sure.Mobile	Jersey (泽西岛)	Sep-06	2100
Jersey Telecom	Jersey (泽西岛)	Jun-06	2100
Vodafone	Jersey (泽西岛)	Jun-07	2100
Bité	Latvia (拉脱维亚)	Jun-06	2100
LMT	Latvia (拉脱维亚)	Dec-04	2100
Tele2	Latvia (拉脱维亚)	Dec-05	2100
Orange	Liechtenstein (列支敦士登)	Feb-07	2100
mobikom	Liechtenstein (列支敦士登)	Mar-07	2100
Telekom FL	Liechtenstein (列支敦士登)	Feb-07	2100
Bité	Lithuania (立陶宛)	Apr-06	2100
Omnitel	Lithuania (立陶宛)	Feb-06	2100
Tele2	Lithuania (立陶宛)	2007	2100
VOX	Luxembourg (卢森堡)	May-05	2100
LuxGSM	Luxembourg (卢森堡)	Jun-03	2100
Tango	Luxembourg (卢森堡)	Jul-04	2100
Cosmofon	Macedonia (马其顿)	Nov-08	2100
T-Mobile MK	Macedonia (马其顿)	Jun-09	2100
go mobile	Malta (马耳他)	Apr-07	2100
Vodafone	Malta (马耳他)	Aug-06	2100
Moldcell	Moldova (摩尔多瓦)	1-Oct-08	2100
Orange	Moldova (摩尔多瓦)	1-Nov-08	2100
Monaco Telecom	Monaco (摩洛哥)	Jun-06	2100
T-Mobile	Montenegro (黑山)	Jun-07	2100
ProMonte	Montenegro (黑山)	Jun-07	2100
Telekom Srbija	Montenegro (黑山)	Jul-07	2100
Telfort	Netherlands (荷兰)	Oct-04	2100
Orange	Netherlands (荷兰)	Nov-06	2100
T-Mobile	Netherlands (荷兰)	Jan-06	2100
Vodafone	Netherlands (荷兰)	Jun-04	2100
TeliaSonera	Norway (挪威)	Jun-05	2100
Telenor Mobil	Norway (挪威)	Dec-04	2100
Optimus	Portugal (葡萄牙)	Jun-04	2100
TMN	Portugal (葡萄牙)	Apr-04	2100
Vodafone	Portugal (葡萄牙)	May-04	2100
Vodafone	Romania (罗马尼亚)	Apr-05	2100
MTN	Cyprus (塞浦路斯)	Oct-05	2100
Orange	Romania (罗马尼亚)	Jun-06	2100
RCS&RDS (Digi.Mobil)	Romania (罗马尼亚)	Feb-07	2100
T-Mobile	Slovak Republic (斯洛伐克)	Mar-06	2100
Orange	Slovak Republic (斯洛伐克)	Jan-06	2100
Orange	Switzerland (瑞士)	Sep-05	2100
Swisscom	Switzerland (瑞士)	Dec-04	2100
TDC	Switzerland (瑞士)	Dec-05	2100
Utel/UkrTelecom	Ukraine (乌克兰)	Nov-07	2100

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America (美洲)			
Operator (运营商)	Country (国家)	Launch Date (推出时间)	Frequency (频率) (MHz)
AT&T Mobility	United States (美国)	2004 July	850/1900
AT&T Mobility	Puerto Rico (波多黎各)	2006 November	850/1900
Rogers	Canada (加拿大)	2006 November	850/1900
Fido	Canada (加拿大)	2007 November	850/1900
Telus	Canada (加拿大)	2010 January	850/1900
Bell Mobility	Canada (加拿大)	2010 January	850/1900
T-Mobile	United States (美国)	2008 May	AWS 1700
Telcel	Mexico (墨西哥)	2008 February	850/1900
Movistar	Mexico (墨西哥)	2008 March	850/1900
Setar	Aruba (阿鲁巴岛)	2007 December	2100
Claro	Guatemala (瓜地马拉)	2008 April	1900
TIGO	Guatemala (瓜地马拉)	2008 September	850
Claro	El Salvador (萨尔瓦多)	2008 January	1900
TIGO	El Salvador (萨尔瓦多)	2008 September	850
Claro	Honduras (洪都拉斯)	2008 February	1900
TIGO	Honduras (洪都拉斯)	2008 September	850
Movistar	Argentina (阿根廷)	2007 July	1900
Telecom Personal	Argentina (阿根廷)	2007 May	1900
Claro	Argentina (阿根廷)	2007 November	850/1900
Entel PCS	Chile (智利)	2006 December	1900
Movistar	Chile (智利)	2007 December	850/1900
Claro	Chile (智利)	2008 January	1900
TIM Brasil	Brazil (巴西)	2008 April	850/2100
Vivo	Brazil (巴西)	2007 November	850/2100
Oi	Brazil (巴西)	2008 May	2100
Brasil Telecom	Brazil (巴西)	2008 April	2100
Claro	Brazil (巴西)	2007 December	850/2100
Comcel	Colombia (哥伦比亚)	2008 January	850/1900
Tigo	Colombia (哥伦比亚)	2008 November	1900
Movistar	Colombia (哥伦比亚)	2008 November	850/1900
Claro	Paraguay (巴拉圭)	2007 November	1900
Claro	Peru (秘鲁)	2007 December	1900
Ancel	Uruguay (乌拉圭)	2007 July	2100
Movistar	Uruguay (乌拉圭)	2007 July	850/1900
Claro	Uruguay (乌拉圭)	2007 November	1900
Movistar	Panama (巴拿马)	2008 November	850/1900
Movistar	Nicaragua (尼加拉瓜)	2008 January	850/1900
Movistar	El Salvador (萨尔瓦多)	2009 June	850/1900
Movistar	Guatemala (瓜地马拉)	2009 June	1900