



Mobile Telecommunications Base Station RF Equipment Technical Specifications and Approval Inspection Guidelines

I. The technical specifications and approval inspection guidelines are based on Mobile Telecommunications Business Regulations number 5 and 37.

II.

Responsible Institution: National Communications Commission (hereafter named NCC)

Processing Organization: NCC 's Public Telecommunications Department

Inspection Organization: Government agencies', nonprofit institutions', or registered companies' testing laboratories (hereafter named Test Labs.) which are conducting similar business and are under licensing agreement with NCC .

III.

The base station RF equipment and mobile equipment includes:

1. Digital low-tier (low -power) wireless telephone communications equipment
- 2 .Trunking radio telephone system
3. Mobile data communications system
4. Radio wireless paging system
5. Mobile telephone system

IV. Application Procedures:

1. The applicant shall submit sample equipment to Test Labs for equipment inspection (If the Test Lab can not perform the inspection, the applicant shall ask other test lab which is certified by foreign certification institutions for inspection) and to receive an equipment testing report. The testing report shall minimally include the basic testing items specified in section six.

2. The applicant shall submit his inspection application to the processing organization with all the proper IDs and documents as specified in section 5.

3. Inspection flow chart is specified in Appendix 1.

V. Required IDs and documents for a base station RF equipment inspection application:

1. Inspection application form (see Appendix 2)
2. Photo copy of applicant related IDs:
 1. Equipment is domestic product:
 - (1). Applicant is an equipment manufacturer: The applicant shall submit the company license, business registration license or manufacture

registration license and telecommunications restricted /controlled equipment business approval license.

- (2). Applicant is either an equipment agent or an equipment distributor:
The applicant shall submit the company license, business registration license, agent or distributing licensing agreement and equipment manufacturer's company license, business registration license, manufacturer registration license, and telecommunications restricted /controlled equipment business approval license.
2. Equipment is foreign product:
The applicant shall submit the company license, business registration license, telecommunications restricted /controlled equipment business approval license, and telecommunications equipment import passport.
3. Inspection equipment related document:
 - (1). An original and a photocopy of the equipment inspection report; the original equipment inspection report will be returned to the applicant after review.
 - (2). The operation manuals and specifications document
 - (3). Equipment model and five (5) 4x5" or larger both equipment/product color photographs for both equipment front and rear sides. (must clearly show brandname, & model)
 - (4). Electronic circuit block diagram

VI. Basic equipment inspection items and technical specifications:

- (1). Base station RF equipment basic inspection testing items and technical specifications are specified in Appendix 3.
- (2). If the equipment submitted for approval using the newest technology or using standards generated by foreign standard institutions and Appendix 3 does not list the basic functional test items for the equipment or the test results do not comply with the technical specifications listed in Appendix 3, the applicant can submit complete technical documents or standard technical specifications generated by foreign standard institution together with test reports (as specified in section 4.1) provided by Test Lab to the NCC processing organization for review.

VII. Inspection fee:

Inspection fee will be based on the standard mobile telecommunications business fee structure. Applicant shall submit his inspection application to the DGT processing organization .The processing organization will issue an invoice and the application shall submit the inspection fee to the NCC secretary Division Treasure Department. There will be no inspection fee refund after the application submission.

VIII. Inspection Certificate Issuance:

If the applicant's Ids and documents are compliant with the regulations, an inspection certificate as specified in Appendix 5 will be issued to the applicant.

Note: The inspection certificate is only responsible for the basic testing items and does not provide warranty for equipment functions, quality and other testing items.

VIII. Inspection Certificate Cancellation:

- (1). Any pattern issues related to the inspection equipment will be the applicant's responsibility. If there is any dispute on the pattern issues and the applicant loses the case in the court, the inspection certificate will be cancelled by the NCC .
- (2). If the applicant closes his business, the inspection certificate will be cancelled by the NCC .
- (3). The for sale equipment manufacture model shall be the same as the equipment submitted for inspection. Otherwise, the inspection certificate will be cancelled.
- (4). The NCC reserves the right to re-inspect the certified equipment. If the re-inspection is found non-compliant and no improvement is made with three months after the notice is issued, the inspection certificate will be cancelled.
- (5). The inspection certificate for any sold equipment will not be void because of conditions under item 1 to 3.
- (6). No re-inspection can be applied for any equipment that the inspection certificate is cancelled by the NCC within six months from the cancellation date.

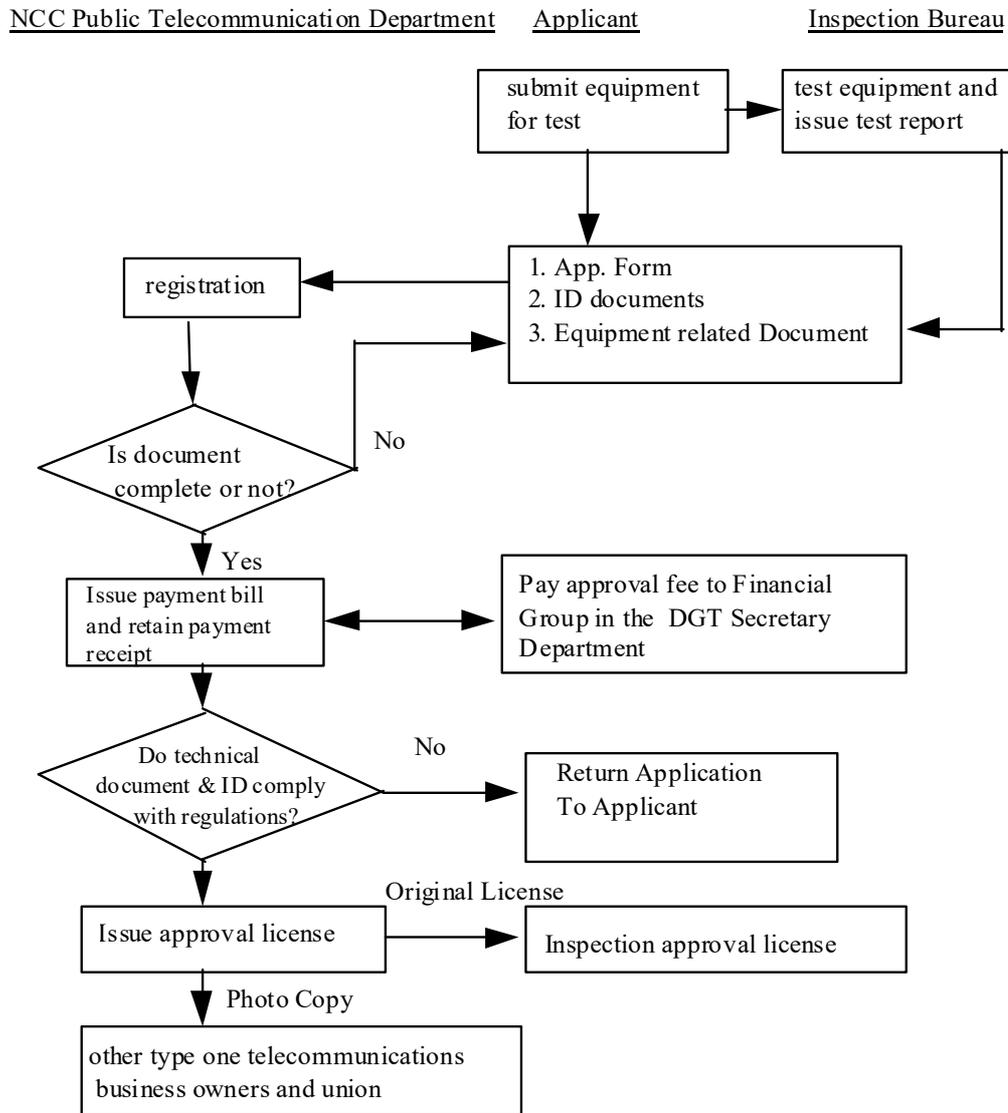
VV. Others:

- (1). Different model and functions equipment shall have separate inspection applications.
- (2). The NCC processing organization reserves the right to ask the applicant to submit the equipment for inspection.
- (3). If the NCC processing organization has any questions on the test report certified by a foreign inspection institution, the NCC can ask the applicant to resubmit the equipment to other foreign test lab for equipment inspection. The applicant will pay this inspection fee.
- (4). For inspection certified equipment, the applicant shall follow the inspection sticker example as indicated in the inspection certificate to replicate additional sticker or to print the sticker at the equipment visible spot.
- (5). If equipment's design is modified for a certified product, this modified equipment shall be re-inspected. However, if only equipment outlook appearance (such as color) change and equipment model and functions remain the same, with the permission of NCC , it will not be required to do the re-inspection.
- (6). For any inspection-certified equipment, the procedures for equipment import, sale, installation and operations shall follow related telecommunications regulations.
- (7). The NCC shall be notified if the applicant changes his address.

VVI.

This technical specifications and inspection guidelines (and future revision) will be effective after the approval of the NCC .

Mobile Communications System Base Station RF Equipment
Approval Procedure Flow Chart



Note: Applicant shall submit sample equipment to government agencies' or nonprofit institutions' testing laboratories (hereafter named testing labs.) which are conducting similar business for sample testing and to receive testing report. The test report, application form and related document shall be submitted to the DGT for approval review.

National Communications Commission

_____ System Base Station RF Equipment Approval Inspection Application Form

Applicant (Company) : _____
Address : _____
Coordinator : _____
Telephone # : _____
Equipment Name & Model : _____
Manufacturer : _____

Attached ID & Document:

1. Applicant's related Ids and photocopies:

(1). Equipment is domestic product:

Applicant is an equipment manufacturer: The applicant shall submit the company license, business registration license or manufacture registration license and telecommunications restricted /controlled equipment business approval license.
Applicant is either an equipment agent or an equipment distributor: The applicant shall submit the company license, business registration license, agent or distributing licensing agreement and equipment manufacturer's company license, business registration license, manufacturer registration license, and telecommunications restricted /controlled equipment business approval license.

(2). Equipment is foreign product:

The applicant shall submit the company license, business registration license, telecommunications restricted /controlled equipment business approval license, and telecommunications equipment import passport.

2. Inspection equipment related document:

(1) An original and a photocopy of the equipment inspection report; the original equipment inspection report will be returned to the applicant after review.

(2). The operation manuals and specifications document

(3). Equipment model and five (5) 4x5" or larger both equipment/product color photographs for both equipment front and rear sides. (must clearly show brandname, & model)

(4). Electronic circuit block diagram

Application Date: Year Month Date

Applicant (company) Stamp:

Responsible Person's Stamp:

(Below will be filled out by the NCC)

Application Date: Year Month Date

Number:

Approval Fee: Based on the standard mobile telecommunications business fee

Processing Organization: NCC Public Telecommunications Division Department , Tel #: 02-2343-3634, Fax: 02-2343-3600

Address: 1F, #16, Sec.2, Gi-Na Rd. Taipei.

Opening Hours: 9:00 - 12:00 AM, 2:00 - 5:00 PM, Saturday PM, Sunday and Holidays are off.

Appendix 3-1

Digital Low-Tier RadioWireless Telephone System
Basic Base Station Equipment Inspection Items and Technical Specifications

Test item	Specification value
Frequency spectrum bandwidth	Between 864.1 - 868.1 MHz
Channels	40 channels (see I-ETS 300 131)
Interval between frequency bands	100 KHz
Maximum transmitting output power	10 mW
Frequency accuracy	Carrier central frequency \pm 10 KHz
Adjacent channel power	< 10 μ W (based on frequency bandwidth 80 KHz \pm 5% accumulated measurements)
Outward output power during output power transient	(1) central carrier frequency \pm 100 KHz: <2.5 μ W (2) central carrier frequency \pm 500 KHz: <1nW
Intermodulated decay/attenuation	< 4nW (10KHz measurement bandwidth)
Spurious radiation	Working mode: 41 MHz to 68 MHz: < 20 nW 87.5 MH to 118 MHz: <20 nW 162 MHz to 230 MHz: < 20 nW 470 MHz to 862 MHz:<20 nW 10.7 GHz to 12.75 GHz: < 20 nW below 1000 MHz shall not exceed 250 nW Standby mode: 864.1 MHz to 868.1 MHz: < 0.2 nW (1KHz measurement bandwidth) 100 KHz to 1GHz:< 2 nW 10.7 GHz to 12.75 GHz: < 4 nW above 1000 MHz shall not exceed 20 nW

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

Appendix 3-2

Trunking Radio Wireless Telephone System Basic base Station Equipment Inspection Items and Technical Specifications

1. 500 MHz band equipment

Test item	Specification value
frequency spectrum bandwidth	507.4375 to 509.950 MHz (Tx) 523.9375 to 526.450 MHz (Rx)
Channels	see trunking radio wireless telephony business guidelines appendix
interval between frequency bands	12.5 KHz or 25 KHz
transmitter frequency tolerance	within ± 2.5 ppm
transmitter RF frequency	see Appendix 4-1

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

2. 800MHz band equipment

Test item	Specification value
Frequency spectrum bandwidth	810.5 to 812 MHz (Rx) 855.5 to 857 MHz (Tx)
Channels	see trunking radio wireless telephony business guidelines Appendix
Interval between frequency bands	12.5 KHz or 25 KHz
Transmitter frequency tolerance	within ± 1.5 ppm
Transmitter RF frequency	see Appendix 4-1

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

Appendix 3-3

Mobile Data Communications System Base Station Equipment Inspection Items and Technical Specifications

1. 500 MHz band equipment

Test item	Specification value
Frequency spectrum bandwidth	510.475 to 512.9875 MHz (Tx) 526.975 to 529.4875 MHz (Rx)
Channels	see mobile data communications system business guidelines Appendix
Interval between frequency bands	12.5 KHz or 25 KHz
Transmitter frequency tolerance	within ± 2.5 ppm
Transmitter RF frequency	see Appendix 4-1

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

2. 800MHz band equipment

Test item	Specification value
Frequency spectrum bandwidth	812 to 813.5 MHz (Rx) 857 to 858.5 MHz (Tx)
Channels	See mobile data communications system business guidelines Appendix
Interval between frequency bands	12.5 KHz or 25 KHz
Transmitter frequency tolerance	Within ± 1.5 ppm
Transmitter RF frequency	See Appendix 4-1

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

Appendix 3-4

Radio Wireless Paging System
Basic base Station Equipment Inspection Items and Technical Specifications

Test item	Specification value
Frequency spectrum bandwidth	284.5 to 285.5 MHz
Channels	See radio paging business guidelines Appendix
Interval between frequency bands	25 KHz
Transmitter frequency tolerance	Within ± 0.05 ppm
Transmitter RF frequency	see Appendix 4-2

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

Appendix 3-5

Mobile Telephone System
Basic Base Station Equipment Inspection Items and Technical Specifications

1. 900 MHz band equipment

(1) Equipment using GSM standard:

Test item	Specification value
Frequency spectrum bandwidth	Rx: $890 + n * 0.2$ MHz Tx: $935 + n * 0.2$ MHz (n = 1 -124)
Max. output power (measured at the transmitter combiner input point)	320W - (<640W)(class 1) 160W -(<320W) (class 2) 80W - (<160W) (class 3) 40 W- (<80W) (class 4) 20W - (<40W) (class 5) 10W - (<20W) (class 6) 5W - (<10W) (class 7) 2.5W - (<5W) (class 8)
Each micro-BTS carrier max. output power (measure at the antenna connector)	((>0.08) ~ 0.25W) (micro-BTS M1) ((>0.03) ~ 0.08W) (micro-BTS M2) ((>0.01) ~ 0.03W) (micro-BTS M3)
transmitter frequency tolerance	Within ± 0.1 ppm
interval between transmit/receive frequency	45 MHz
interval between channel	200 KHz
spurious radiation	Measurement based on Table 3.4.1 ≤ -36 dBm Measurement based on Table 3.4.2: could either use (A) or (B) measurement (A) Radiated: 30 MHz - 1 GHz: ≤ -36 dBm 1 GHz - 12.75 GHz: ≤ -30 dBm (B) Antenna connector: 9 KHz - 1GHz: ≤ -36 dBm 1 GHz - 12.75 GHz: ≤ -30 dBm
transmitter frequency and phase error	Frequency error: ≤ 90 Hz Phase error (RMS): ≤ 5 degrees Phase error (PEAK): ≤ 20 degrees
transmit frequency spectrum	See Appendix 4-3

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

2. 1800 MHz band equipment

Equipment using DCS-1800 standard:

Test item	Specification value
Frequency spectrum bandwidth	Rx: $1710.2 + 0.2 * (n-512)$ MHz Tx: $1805.2 + 0.2 * (n-512)$ MHz ($512 \leq n \leq 885$)
Max. output power (measured at the transmitter combiner input point)	20W - (<40W) (class 1) 10W - (<20W) (class 2) 5W - (<10W) (class 3) 2.5W - (<5W) (class 4)
Each micro-BTS carrier max. output power (measured at antenna connector)	((>0.5) ~ 1.6W) (micro-BTS M1) ((>0.16) ~ 0.5W) (micro-BTS M2) ((>0.05) ~ 0.16W) (micro-BTS M3)
Transmitter frequency tolerance	within ± 0.1 ppm
Interval between transmit/receive frequency	95 MHz
Interval between channel	200 KHz
Spurious radiation	measurement based on Table 3.4.1 ≤ -36 dBm measurement based on Table 3.4.2: could either use (A) or (B) measurement (A) Radiated: 30 MHz - 1 GHz: ≤ -36 dBm 1 GHz - 12.75 GHz: ≤ -30 dBm (B) Antenna connector: 9 KHz - 1GHz: ≤ -36 dBm 1 GHz - 12.75 GHz: ≤ -30 dBm
Transmitter frequency and phase error	frequency error: ≤ 90 Hz phase error (RMS): ≤ 5 degrees phase error (PEAK): ≤ 20 degrees
Transmit frequency spectrum	see Appendix 4-3

Note: Measurements on inspection channels in the working frequency bandwidth shall include each frequency band (low, middle and high frequency band).

3. Table 3.4.1

Frequency band	Carrier frequency deviation	Measured bandwidth
900 MHz transmitting frequency spectrum: 935 - 960 MHz	≥ 600 KHz	10 KHz
1800 MHz transmitting frequency spectrum: 1805 -1880 MHz	≥ 1.8 MHz ≥ 6 MHz	30 KHz 100 KHz

4. Table 3.4.2

Frequency band	Related Tx frequency border deviation	Measured bandwidth
For transmitting frequency outside of the Table 3.4.1 frequency band	≥ 2 MHz ≥ 5 MHz ≥ 10 MHz ≥ 20 MHz ≥ 30 MHz	30KHz 100 KHz 300 KHz 1 MHz 3 MHz

Appendix 3-6

Mobile Telephone System
Basic Repeater/Booster Equipment Inspection Items and Technical Specifications

1. 900 MHz band equipment

(1) Equipment using AMPS standard:

Test item	Specification value
Frequency spectrum bandwidth	Uplink: 824-849MHz Downlink: 869-894MHz
Gain	$\leq 90\text{dB}$
Noise Figure	$\leq 8\text{dB}$
Uplink/Downlink frequency suppression	$\geq 70\text{dB}$
Spurious emission	$\leq -36\text{dBm}$ (9KHz-1GHz) $\leq -30\text{dBm}$ (1GHz-12.75GHz)
Intermodulation	$\leq -36\text{dBm}$ (9KHz-1GHz) $\leq -30\text{dBm}$ (1GHz-12.75GHz)

(2) Equipment using GSM standard:

Test item	Specification value
Frequency spectrum bandwidth	Uplink: 890-915MHz Downlink: 935-960MHz
Selectivity 3dB Bandwidth	$\leq 7\text{MHz}$ (Class 1) $\leq 15\text{MHz}$ (Class 3)
Out-of-Band Gain	$\leq 50\text{dB}$ (frequency deviation: $\pm 400\text{KHz}$) $\leq 40\text{dB}$ (frequency deviation: $\pm 600\text{KHz}$) $\leq 35\text{dB}$ (frequency deviation: $\pm 1\text{MHz}$) $\leq 25\text{dB}$ (frequency deviation: $\pm 5\text{MHz}$)
Spurious Emission	$\leq -36\text{dBm}$ (9KHz-1GHz) $\leq -30\text{dBm}$ (1GHz-12.75GHz)
Intermodulation	$\leq -36\text{dBm}$ (9KHz-1GHz) $\leq -30\text{dBm}$ (1GHz-12.75GHz)
Noise Figure	$\leq 8\text{dB}$
Uplink/Downlink Frequency Suppression	$\geq 70\text{dB}$
Gain	$\leq 90\text{dB}$

2. 1800 MHz band equipment

Equipment using DCS-1800 standard:

Test item	Specification value
Frequency spectrum bandwidth	Uplink: 1805.2-1879.8MHz Downlink: 1710.2-1784.8MHz
3dB Bandwidth	$\leq 11.2\text{MHz}$ (Class 2)
Out-of-band Gain	$\leq 50\text{dB}$ (frequency deviation: $\pm 400\text{KHz}$) $\leq 40\text{dB}$ (frequency deviation: $\pm 600\text{KHz}$) $\leq 35\text{dB}$ (frequency deviation: $\pm 1\text{MHz}$) $\leq 25\text{dB}$ (frequency deviation: $\pm 5\text{MHz}$)
Spurious Emission	$\leq -36\text{dBm}$ (9KHz-1GHz) $\leq -30\text{dBm}$ (1GHz-12.75GHz)
Intermodulation	$\leq -36\text{dBm}$ (9KHz-1GHz) $\leq -30\text{dBm}$ (1GHz-12.75GHz)
Noise Figure	$\leq 8\text{dB}$
Uplink/Downlink Frequency Suppression	$\geq 70\text{dB}$
Gain	$\leq 90\text{dB}$

Note:

Class1 Applicable for FarEasTone Telecommunications, Mobitai Communications, TransAsia Telecommunications.

Class2 Applicable for Chunghwa Telecom, Taiwan Cellular Corp, KG Telecom, FarEasTone Telecommunications.

Class3 Applicable for Chunghwa Telecom.

Appendix 4-1

Trunking Radio Wireless Telephone System and
Mobile Data Telecommunications System Base Station RF Frequency
Technical Specifications

- Analog Modulation (with voice frequency low pass filter):

For each frequency, the attenuation for the ratio between the average power and the output power is specified as the following:

Frequency Range	Attenuation (dB)
$B/2 < f_d \leq B$	25
$B < f_d \leq 2.5 B$	35
$2.5B < f_d $	the minimum value of $[43 + 10 \text{Log}_{10}$ (average output power (watts))] or 80

- Analog Modulation (without voice frequency low pass filter) or Digital Modulation:
For each frequency, the attenuation for the ratio between the average power and the output power is specified as the following:

Frequency Range	Attenuation (dB)
$5\text{KHz} < f_d \leq 10\text{KHz}$	$83\text{Log}_{10}(f_d/5)$
$10\text{KHz} < f_d \leq 2.5 B$	the minimum value of $[116\text{Log}_{10}(f_d/6.1)]$, $[50+10\text{Log}_{10}(p)]$, or 70
$2.5B < f_d $	the minimum value of $[43 + 10 \text{Log}_{10}$ (average output power (watts))] or 80

f_d : Frequency offset away from the carrier central frequency

B: 20 KHz (channel interval is 25 KHz)

8 KHz (channel interval is 12.5 KHz)

P: unmodulated carrier output power

Measured frequency shall cover at least $2f_c+BW$ frequency bandwidth (f_c :carrier central frequency, BW:channel interval)

Appendix 4-2

Radio Wireless Paging System
Base Station RF Transmit Frequency Technical Specifications

For each frequency, the attenuation for the ratio between the average power and the output power is specified as the following:

Distance away from the carrier central frequency	Attenuation (dB)
$5\text{KHz} < f_d \leq 10\text{KHz}$	$83\text{Log}_{10}(f_d/5)$
$10\text{KHz} < f_d \leq 2.5 \text{ B}$	the minimum value of $[29\text{Log}_{10}(f_d^2/11)]$ or 50
$50\text{KHz} < f_d $	the minimum value of $[43 + 10 \text{Log}_{10}(\text{average output power (watts)})]$ or 80

f_d : Frequency offset away from the carrier central frequency

Measured frequency shall cover at least $2f_c + \text{BW}$ frequency bandwidth (f_c : carrier central frequency, BW : channel interval)

Mobile Telephone System
Base Station Equipment Transmit RF Frequency Technical Specifications

1. Spectrum due to modulation:

(1). Equipment using GSM standards:

Power	For each carrier frequency deviation (KHz) with respect to its respective carrier frequency output power, the maximum allowable value (dB)				
(dBm)	30KHz (measurement bandwidth)				
	100	200	250	400	600 -1800
≥43	+0.5	-30	-33	-60	-70
41	+0.5	-30	-33	-60	-68
39	+0.5	-30	-33	-60	-66
37	+0.5	-30	-33	-60	-64
35	+0.5	-30	-33	-60	-62
≤33	+0.5	-30	-33	-60	-60

Note: Values in the above table shall be modified according to the following rules:
If a frequency measurement absolute value is below -36dBm with the carrier frequency deviation between 400 KHz and 1800 KHz and , then -36 dBm shall be applied as the above max. attenuation value (dB) (with respect to the carrier frequency output power).

(2). Equipment using DCS-1800 standard:

Power	For each carrier frequency deviation (KHz) with respect to its respective carrier frequency power, the maximum allowable value (dB)						
(dBm)	30KHz (measurement bandwidth)					100KHz (measurement bandwidth)	
	100	200	250	400	600 - 1800	1800 - 6000	>6000
≥43	+0.5	-30	-33	-60	-70	-70	-80
41	+0.5	-30	-33	-60	-68	-70	-80
39	+0.5	-30	-33	-60	-66	-70	-80
37	+0.5	-30	-33	-60	-64	-68	-80
35	+0.5	-30	-33	-60	-62	-66	-80
≤33	+0.5	-30	-33	-60	-60	-66	-80

Note: Values in the above table shall be modified according to the following rules:
(a). For frequency that has carrier frequency deviation that is outside the area between 600KHz and 6MHz, the measurement can only allow for three (3) measurement values that do not meet the values listed in the above Table assuming each measured value is below -36 dBm signals(with 200 KHz bandwidth).

(b). For frequency that has carrier frequency deviation above 6MHz, the measurement can only allow for twelve (12) measurement value that do not meet the values listed in the above Table assuming each measured value is below -36 dBm (with 200 KHz bandwidth).

(c). If a absolute measurement value is below -57dBm, then -57 dBm shall be applied as the above max. attenuation value (dB) (with respect to the carrier frequency output power).

(d). For frequency that has carrier frequency deviation that is outside the area between 1800KHz and 6000 KHz, there shall have at least one measurement value.

(3). GSM's and DCS-1800's Micro-BTS value shall be based on the above (1) and (2) standard. If a measurement in the above table is less than the following L value, it shall be replaced by the L value. The L value is the greater value of L1 (dB) and L2 (dBm). (L1 is the relative value of BTS output power value. BTS output value is the minimum stable output power value based on 30 KHz bandwidth measurement.).

		Micro-BTS M1	Micro-BTS M2	Micro-BTS M3
L1	frequency deviation inside of 1800 KHz	-88 dB	-88 Db	-88 dB
	frequency deviation outside of 1800 KHz	-70 dB(GSM) -76 dB (DCS-1800)	-70 dB(GSM) -76 dB (DCS-1800)	-70 dB (GSM) -76 dB (DCS-1800)
L2	GSM	-59 dBm	-64 dBm	-69 dBm
	DCS-1800	-57 dBm	-62dBm	-67 dBm

2. Spectrum due to switching transients:

1. Equipment using GSM standard:

Output power	The maximum signal allowable output power for the following frequency deviation (KHz)			
	400	600	1200	1800
P _{max}	-57 dBc or -36 dBm (take the max. value)	-67 dBc or -36 dBm (take the max. value)	-74 dBc or -36 dBm (take the max. value)	-74 dBc or -36 dBm (take the max. value)

Note: the output power measurement bandwidth \geq 300KHz.

2. Equipment using DCS-1800 standard:

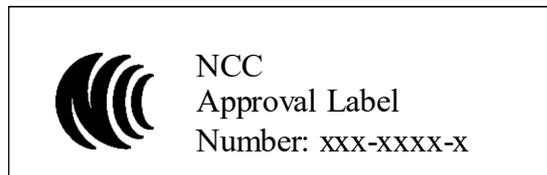
Output power	The maximum signal allowable output power for the following frequency deviation (KHz)			
	400	600	1200	1800
P _{max}	-50 dBc or -36 dBm (take the max. value)	-58 dBc or -36 dBm (take the max. value)	-66 dBc or -36 dBm (take the max. value)	-66 dBc or -36 dBm (take the max. value)

Note: the output power measurement bandwidth \geq 300KHz.

Appendix 5

**National Communications Commission
Certificate of Compliance Approval for
_____ System Base Station RF Equipment**

1. Equipment Name:
2. Manufacturer Model:
3. Manufacturer:
4. Applicant:
5. Application type:
6. Application date:
7. Compliance Approval Label:



Explanation:

1. The applicant shall follow the above sticker example to replicate additional stickers and to attach the sticker on the appropriate equipment place.
2. If equipment's design model, functions or appearance is modified for a certified product, this modified equipment shall be re-inspected. If such modified equipment does not apply for re-inspection, the DGT can cancel its original inspection approval license/certificate.
3. This inspection approval license is based on the inspected equipment. It will be the manufacturer's sole responsibility if the equipment malfunction due to product design, manufacturing and product sale and marketing causes damage on the user's right, hardware and software legal right, equipment function, equipment reliability and equipment safety.
4. The right to use the approved equipment sticker belongs to the applicant. Another manufacturer who likes to use the approved sticker needs to receive agreement from the original applicant as well as notify the DGT before using the approved sticker. Otherwise, the manufacturer needs to file an approval application and wait for application approval.