

NTSC Broadcast and CATV Information

Here is a list of TV frequencies. In the US, a TV channel is a 6 MHz wide chunk of bandspace. The bottom edge of the over-the-air channel 2 is 54 MHz and the upper edge is 60 MHz. Within this 6 MHz space is a video carrier, a color carrier, and an audio carrier.

The frequency of the video carrier is 1.25 MHz above the lower edge, so for channel 2 the video is at 55.25 MHz.

The color carrier is approx. 3.58 MHz above the `_video_` carrier (N.B. not the lower edge), so for ch 2 it is 58.83 MHz.

The audio carrier is 4.5 MHz above the `_video_` carrier, so for ch 2 it is 59.75 MHz.

The reason I mention all of this is that you have to be careful to note how a channel frequency is being specified. The two common methods are (1) specifying the lower edge (e.g. 54 MHz, but often as a range of lower edge to upper edge like 54-60 MHz) and (2) specifying the frequency of the video carrier (e.g. 55.25 MHz). In the following lists I always use the latter method, specifying the video carrier.

CATV has channels with frequencies below channel 2. They are designated T-7 (tee seven or tee dash seven) through T-14 and are usually used for transmission in the reverse direction. If your local city council meeting is broadcast live, the camera is being modulated onto one of those T channels and sent back up to the cable system headend whereupon it is broadcast outbound on the community cable access channel.

In the list I have some channels with the designation A-1 (A minus one, not A dash one) through A-8. They are so designated because their frequencies immediately precede that of the CATV channel known as A.

In the CATV listing, the column labeled Common gives the common industry parlance for that channel. The next column labeled EIA gives the new EIA standardized designation. Column STD shows the standard CATV frequency which usually matches IRC. IRC stands for Incrementally Related Carrier and means that the `_lower_edge_` of the channel space is on the nice, round-numbered boundary such as 54 MHz, 60 MHz, 66 MHz etc. HRC stands for Harmonically Related Carrier, and as you can see means that it is the `_video_carrier_` that is assigned the nice round number (6 MHz harmonics, hence). Some cable systems use IRC, some use HRC.

The number of channels on a given cable system varies. Very old systems might only go up to 300 or 350 MHz. Most common in the past ten years or so is 450 MHz. Newer systems may be 550 MHz. The latest and greatest with any meaningful installed base is 800 or 860 MHz (somebody correct me), but it is rare and pricey. The list herein only goes up to 550 MHz.

FM radio frequencies are thrown in for good measure.

This stuff was gathered from several sources. My thanks to all of them.

Error reports are welcome.

AIR	2	55.25	VHF-LO	
AIR	3	61.25	VHF-LO	
AIR	4	67.25	VHF-LO	
AIR	5	77.25	VHF-LO	
AIR	6	83.25	VHF-LO	
AIR	7	175.25	VHF-HI	
AIR	8	181.25	VHF-HI	
AIR	9	187.25	VHF-HI	
AIR	10	193.25	VHF-HI	
AIR	11	199.25	VHF-HI	
AIR	12	205.25	VHF-HI	
AIR	13	211.25	VHF-HI	
AIR	14	471.25	UHF	
AIR	15	477.25	UHF	
AIR	16	483.25	UHF	
AIR	17	489.25	UHF	
AIR	18	495.25	UHF	
AIR	19	501.25	UHF	
AIR	20	507.25	UHF	
AIR	21	513.25	UHF	
AIR	22	519.25	UHF	

AIR	23	525.25	UHF	
AIR	24	531.25	UHF	
AIR	25	537.25	UHF	
AIR	26	543.25	UHF	
AIR	27	549.25	UHF	
AIR	28	555.25	UHF	
AIR	29	561.25	UHF	
AIR	30	567.25	UHF	
AIR	31	573.25	UHF	
AIR	32	579.25	UHF	
AIR	33	585.25	UHF	
AIR	34	591.25	UHF	
AIR	35	597.25	UHF	
AIR	36	603.25	UHF	
AIR	37	609.25	UHF	
AIR	38	615.25	UHF	
AIR	39	621.25	UHF	
AIR	40	627.25	UHF	
AIR	41	633.25	UHF	
AIR	42	639.25	UHF	
AIR	43	645.25	UHF	
AIR	44	651.25	UHF	
AIR	45	657.25	UHF	
AIR	46	663.25	UHF	
AIR	47	669.25	UHF	

AIR	48	675.25	UHF	
AIR	49	681.25	UHF	
AIR	50	687.25	UHF	
AIR	51	693.25	UHF	
AIR	52	699.25	UHF	
AIR	53	705.25	UHF	
AIR	54	711.25	UHF	
AIR	55	717.25	UHF	
AIR	56	723.25	UHF	
AIR	57	729.25	UHF	
AIR	58	735.25	UHF	
AIR	59	741.25	UHF	
AIR	60	747.25	UHF	
AIR	61	753.25	UHF	
AIR	62	759.25	UHF	
AIR	63	765.25	UHF	
AIR	64	771.25	UHF	
AIR	65	777.25	UHF	
AIR	66	783.25	UHF	
AIR	67	789.25	UHF	
AIR	68	795.25	UHF	
AIR	69	801.25	UHF	
AIR	70	807.25	UHF	(no longer assigned to TV)
AIR	71	813.25	UHF	(no longer assigned to TV)
AIR	72	819.25	UHF	(no longer assigned to TV)

AIR	73	825.25	UHF	(no longer assigned to TV)
AIR	74	831.25	UHF	(no longer assigned to TV)
AIR	75	837.25	UHF	(no longer assigned to TV)
AIR	76	843.25	UHF	(no longer assigned to TV)
AIR	77	849.25	UHF	(no longer assigned to TV)
AIR	78	855.25	UHF	(no longer assigned to TV)
AIR	79	861.25	UHF	(no longer assigned to TV)
AIR	80	867.25	UHF	(no longer assigned to TV)
AIR	81	873.25	UHF	(no longer assigned to TV)
AIR	82	879.25	UHF	(no longer assigned to TV)
AIR	83	885.25	UHF	(no longer assigned to TV)

Common	EIA	STD	IRC	HRC	Band
CATV T-7		7.00			SUB
CATV T-8		13.00			SUB
CATV T-9		19.00			SUB
CATV T-10		25.00			SUB
CATV T-11		31.00			SUB
CATV T-12		37.00			SUB
CATV T-13		43.00			SUB
CATV T-14		49.00			SUB
CATV 2-1			49.25	48.00	LO
CATV 2	02	55.25	55.25	54.00	LO
CATV 3	03	61.25	61.25	60.00	LO
CATV 4	04	67.25	67.25	66.00	LO

CATV A-8 4+		01	73.25	72.00	LO
CATV A-7 5	05		79.25	78.00	LO
CATV A-6 6	06		85.25	84.00	LO
CATV A-5	95	91.25	90.00	91.25	MID
CATV A-4	96	97.25	96.00	97.25	MID
CATV A-3	97	103.25	102.00	103.25	MID
CATV A-2	98	109.25	108.00	109.25	MID
CATV A-1	99	115.25	114.00	115.25	MID
CATV 7	07	175.25	175.25	174.00	HI
CATV 8	08	181.25	181.25	180.00	HI
CATV 9	09	187.25	187.25	186.00	HI
CATV 10	10	193.25	193.25	192.00	HI
CATV 11	11	199.25	199.25	198.00	HI
CATV 12	12	205.25	205.25	204.00	HI
CATV 13	13	211.25	211.25	210.00	HI
CATV A	14	121.25	121.25	120.00	MID
CATV B	15	127.25	127.25	126.00	MID
CATV C	16	133.25	133.25	132.00	MID
CATV D	17	139.25	139.25	138.00	MID
CATV E	18	145.25	145.25	144.00	MID
CATV F	19	151.25	151.25	150.00	MID
CATV G	20	157.25	157.25	156.00	MID
CATV H	21	163.25	163.25	162.00	MID
CATV I	22	169.25	169.25	168.00	MID

CATV J	23	217.25	217.25	216.00	SUPER
CATV K	24	223.25	223.25	222.00	SUPER
CATV L	25	229.25	229.25	228.00	SUPER
CATV M	26	235.25	235.25	234.00	SUPER
CATV N	27	241.25	241.25	240.00	SUPER
CATV O	28	247.25	247.25	246.00	SUPER
CATV P	29	253.25	253.25	252.00	SUPER
CATV Q	30	259.25	259.25	258.00	SUPER
CATV R	31	265.25	265.25	264.00	SUPER
CATV S	32	271.25	271.25	270.00	SUPER
CATV T	33	277.25	277.25	276.00	SUPER
CATV U	34	283.25	283.25	282.00	SUPER
CATV V	35	289.25	289.25	288.00	SUPER
CATV W	36	295.25	295.25	294.00	SUPER
CATV AA	37	301.25	301.25	300.00	HYPER
CATV BB	38	307.25	307.25	306.00	HYPER
CATV cc	39	313.25	313.25	312.00	HYPER
CATV DD	40	319.25	319.25	318.00	HYPER
CATV EE	41	325.25	325.25	324.00	HYPER
CATV FF	42	331.25	331.25	330.00	HYPER
CATV GG	43	337.25	337.25	336.00	HYPER
CATV HH	44	343.25	343.25	342.00	HYPER
CATV II	45	349.25	349.25	348.00	HYPER
CATV JJ	46	355.25	355.25	354.00	HYPER
CATV KK	47	361.25	361.25	360.00	HYPER

CATV LL	48	367.25	367.25	366.00	HYPER
CATV MM	49	373.25	373.25	372.00	HYPER
CATV NN	50	379.25	379.25	378.00	HYPER
CATV OO	51	385.25	385.25	384.00	HYPER
CATV pp	52	391.25	391.25	390.00	HYPER
CATV QQ	53	397.25	397.25	396.00	HYPER
CATV RR	54	403.25	403.25	402.00	HYPER
CATV SS	55	409.25	409.25	408.00	HYPER
CATV TT	56	415.25	415.25	414.00	HYPER
CATV UU	57	421.25	421.25	420.00	HYPER
CATV VV	58	427.25	427.25	426.00	HYPER
CATV WW	59	433.25	433.25	432.00	HYPER
CATV xx	60	439.25	439.25	438.00	HYPER
CATV YY	61	445.25	445.25	444.00	HYPER
CATV ZZ	62	451.25	451.25	450.00	HYPER
CATV AAA	63	457.25	457.25	456.00	HYPER
CATV BBB	64	463.25	463.25	462.00	HYPER
CATV CCC	65	469.25	469.25	468.00	HYPER
CATV DDD	66	475.25	475.25	474.00	HYPER
CATV EEE	67	481.25	481.25	480.00	HYPER
CATV FFF	68	487.25	487.25	486.00	HYPER
CATV GGG	69	493.25	493.25	492.00	HYPER
CATV HHH	70	499.25	499.25	498.00	HYPER
CATV III	71	505.25	505.25	504.00	HYPER
CATV JJJ	72	511.25	511.25	510.00	HYPER

CATV KKK	73	517.25	517.25	516.00	HYPER
CATV LLL	74	523.25	523.25	522.00	HYPER
CATV MMM	75	529.25	529.25	528.00	HYPER
CATV NNN	76	535.25	535.25	534.00	HYPER
CATV OOO	77	541.25	541.25	540.00	HYPER
CATV PPP	78	547.25	547.25	546.00	HYPER

FM 200	87.90	Assigned only in rare cases.
FM 201	88.10	
FM 202	88.30	
FM 203	88.50	
FM 204	88.70	
FM 205	88.90	
FM 206	89.10	
FM 207	89.30	
FM 208	89.50	
FM 209	89.70	
FM 210	89.90	
FM 211	90.10	
FM 212	90.30	
FM 213	90.50	
FM 214	90.70	
FM 215	90.90	
FM 216	91.10	
FM 217	91.30	
FM 218	91.50	
FM 219	91.70	
FM 220	91.90	
FM 221	92.10	
FM 222	92.30	
FM 223	92.50	
FM 224	92.70	
FM 225	92.90	

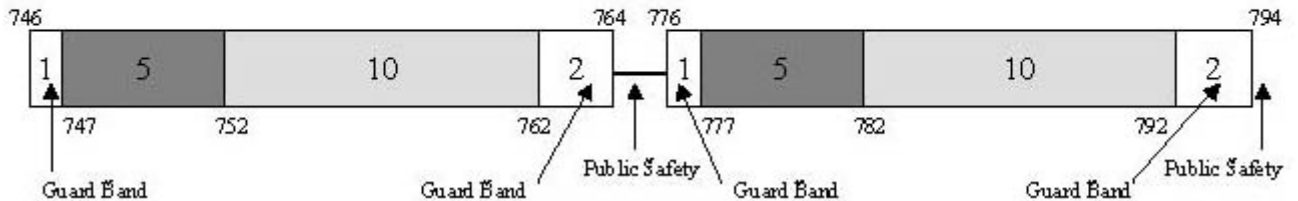
FM 226	93.10	
FM 227	93.30	
FM 228	93.50	
FM 229	93.70	
FM 230	93.90	
FM 231	94.10	
FM 232	94.30	
FM 233	94.50	
FM 234	94.70	
FM 235	94.90	
FM 236	95.10	
FM 237	95.30	
FM 238	95.50	
FM 239	95.70	
FM 240	95.90	
FM 241	96.10	
FM 242	96.30	
FM 243	96.50	
FM 244	96.70	
FM 245	96.90	
FM 246	97.10	
FM 247	97.30	
FM 248	97.50	
FM 249	97.70	
FM 250	97.90	
FM 251	98.10	
FM 252	98.30	
FM 253	98.50	
FM 254	98.70	
FM 255	98.90	
FM 256	99.10	
FM 257	99.30	
FM 258	99.50	
FM 259	99.70	
FM 260	99.90	

FM 261	100.10	
FM 262	100.30	
FM 263	100.50	
FM 264	100.70	
FM 265	100.90	
FM 266	101.10	
FM 267	101.30	
FM 268	101.50	
FM 269	101.70	
FM 270	101.90	
FM 271	102.10	
FM 272	102.30	
FM 273	102.50	
FM 274	102.70	
FM 275	102.90	
FM 276	103.10	
FM 277	103.30	
FM 278	103.50	
FM 279	103.70	
FM 280	103.90	
FM 281	104.10	
FM 282	104.30	
FM 283	104.50	
FM 284	104.70	
FM 285	104.90	
FM 286	105.10	
FM 287	105.30	
FM 288	105.50	
FM 289	105.70	
FM 290	105.90	
FM 291	106.10	
FM 292	106.30	
FM 293	106.50	
FM 294	106.70	
FM 295	106.90	

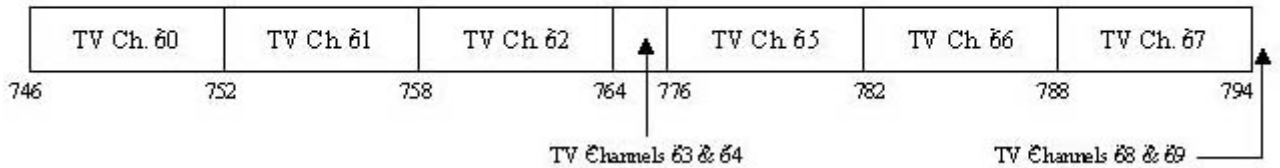
FM	296	107.10	
FM	297	107.30	
FM	298	107.50	
FM	298	107.70	
FM	300	107.90	

Channels 60-69 will become the 700 MHz Band [700 MHz Band & Auction ET Docket No. 97-157 60-69](#)

700 MHz Band Plan



TV Channelization



**** March 15, 2001:** The Federal Communications Commission took its first steps to auction airwaves used by television broadcasters on [Channels 52 through 59](#), sought by mobile-phone carriers such as Nextel Communications. The agency proposed rules to make the TV spectrum available for mobile or other wireless services. It is seeking comment on whether it should help broadcasters relinquish the frequencies. The FCC plans to let broadcasters and phone companies work out agreements to clear the spectrum.

This Spectrum will become available as broadcasters switch to higher-quality digital signals and shut off analog signals. The move will occur when [85 percent](#) of consumers have digital TV receivers, or by 2006, whichever is later.

Almost all wireless mics operate on the same frequencies as TV stations. The TV stations are licensed by the FCC and are running at very high power levels.

Virtually all wireless mics are not licensed, and must accept any interference they get from TV stations. For this reason, a wireless mic that works fine in one city, may not work in another.

As new stations go on the air, your wireless mic may become useless. It is important to understand this, because every TV station in the country is getting a new frequency for digital TV broadcasting. Only some of these new transmitters are on the air yet, but in the 2006, they should all be on the air. Check with all your local TV stations to determine what new channels have been assigned to them for digital broadcasting, and when they expect to be on the air. Most manufacturers can switch your existing wireless mics to different frequencies if needed. It would be wise to determine today if your existing mics will have problems so you can get them changed at your leisure, and not in a panic after they fail.

MARINE VHF Frequencies

Channel Number	Ship Transmit	Ship Receive	Use
01A	156.050	156.050	Port Operations and Commercial. VTS in selected areas.
05A	156.250	156.250	Port Operations. VTS in Seattle
06	156.300	156.300	Intership Safety
07A	156.350	156.350	Commercial
08	156.400	156.400	Commercial (Intership only)
09	156.450	156.450	Boater Calling. Commercial and Non-Commercial.
10	156.500	156.500	Commercial
11	156.550	156.550	Commercial. VTS in selected areas.
12	156.600	156.600	Port Operations. VTS in selected areas.
13	156.650	156.650	Intership Navigation Safety (Bridge-to-bridge). Ships >20m length maintain listening watch on this channel in US waters.
14	156.700	156.700	Port Operations. VTS in selected areas.
15	--	156.750	Environmental (Receive only). Used by Class C EPIRBs.
16	156.800	156.800	International Distress, Safety and Calling. Ships required to carry radio, USCG, and most coast stations maintain listening watch on this channel.
17	156.850	156.850	State Control
18A	156.900	156.900	Commercial
19A	156.950	156.950	Commercial
20	157.000	161.600	Port Operations (duplex)
20A	157.000	157.000	Port Operations
21A	157.050	157.050	U.S. Government only
22A	157.100	157.100	Coast Guard Liaison and Maritime Safety Information Broadcasts.

			Broadcasts announced on channel 16.
23A	157.150	157.150	U.S. Government only
24	157.200	161.800	Public Correspondence (Marine Operator)
25	157.250	161.850	Public Correspondence (Marine Operator)
26	157.300	161.900	Public Correspondence (Marine Operator)
27	157.350	161.950	Public Correspondence (Marine Operator)
28	157.400	162.000	Public Correspondence (Marine Operator)
63A	156.175	156.175	Port Operations and Commercial. VTS in selected areas.
65A	156.275	156.275	Port Operations
66A	156.325	156.325	Port Operations
67	156.375	156.375	Commercial. Used for Bridge-to-bridge communications in lower Mississippi River. Intership only.
68	156.425	156.425	Non-Commercial
69	156.475	156.475	Non-Commercial
70	156.525	156.525	Digital Selective Calling (voice communications not allowed)
71	156.575	156.575	Non-Commercial
72	156.625	156.625	Non-Commercial (Intership only)
73	156.675	156.675	Port Operations
74	156.725	156.725	Port Operations
77	156.875	156.875	Port Operations (Intership only)
78A	156.925	156.925	Non-Commercial
79A	156.975	156.975	Commercial
80A	157.025	157.025	Commercial
81A	157.075	157.075	U.S. Government only - Environmental protection operations.
82A	157.125	157.125	U.S. Government only
83A	157.175	157.175	U.S. Government only
84	157.225	161.825	Public Correspondence (Marine Operator)
85	157.275	161.875	Public Correspondence (Marine Operator)
86	157.325	161.925	Public Correspondence (Marine Operator)
87	157.375	161.975	Public Correspondence (Marine Operator)
88	157.425	162.025	Public Correspondence in selected areas only.
88A	157.425	157.425	Commercial, Intership only.



National Weather Service Home Page



NOAA Weather Radio Frequencies

WX1 -- 162.550
WX2 -- 162.400
WX3 -- 162.475
WX4 -- 162.425

WX5 -- 162.450
WX6 -- 162.500
WX7 -- 162.525

["SAME" codes](#)

Family Radio Service

Chan	Freq.	Chan	Freq.
(1)	462.5625	(8)	467.5625
(2)	462.5875	(9)	467.5875
(3)	462.6125	(10)	467.6125
(4)	462.6375	(11)	467.6375
(5)	462.6625	(12)	467.6625
(6)	462.6875	(13)	467.6875
(7)	462.7125	(14)	467.7125

General Mobile Radio Service (GMRS)

462.550	462.575	462.600	462.6250	462.650
462.675	462.700	462.725	462.5625	462.5875
462.6125	462.6375	462.6625	462.6875	462.7125

[GMRS / FRS info](#)

License-Free, 2 watts max ERP

Multi-Use Radio Service (MURS)

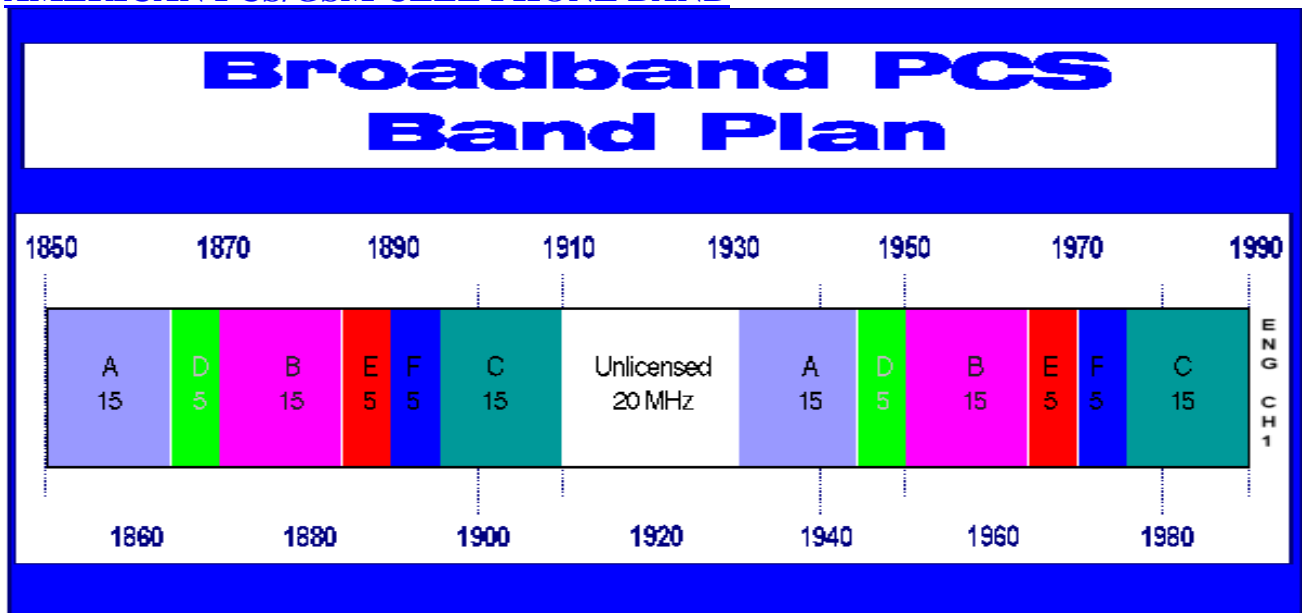
151.820	151.880	151.940	154.570	154.600
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MURS: [FCC](#) [Yahoo Groups Discussion Site](#)

A new section 95.632 is added as follows: 95.632 MURS transmitter frequencies. (a) The MURS transmitter channel frequencies are 151.820 MHz, 151.880 MHz, 151.940 MHz, 154.570 MHz, 154.600 MHz. (b) The authorized bandwidth is 11.25 kHz on frequencies 151.820 MHz, 151.880 MHz and 151.940 MHz. The authorized bandwidth is 12.5 kHz on frequencies 154.570 and 154.600 kHz. (c) MURS transmitters must maintain a frequency stability of 5.0 ppm, or 2.0 ppm if designed to operate with a 6.25 kHz bandwidth.

U. S. "Citizen's Band" (11 Meter Band)							
Ch.	Frequency	Ch.	Frequency	Ch.	Frequency	Ch.	Frequency
01	26.9650	11	27.0850	21	27.2150	31	27.3150
02	26.9750	12	27.1050	22	27.2250	32	27.3250
03	26.9850	13	27.1150	23	27.2550	33	27.3350
04	27.0050	14	27.1250	24	27.2350	34	27.3450
05	27.0150	15	27.1350	25	27.2450	35	27.3550
06	27.0250	16	27.1550	26	27.2650	36	27.3650
07	27.0350	17	27.1650	27	27.2750	37	27.3750
08	27.0550	18	27.1750	28	27.2850	38	27.3850
09	27.0650	19	27.1850	29	27.2950	39	27.3950
10	27.0750	20	27.2050	30	27.3050	40	27.4050

AMERICAN PCS/GSM CELL PHONE BAND



PCS/GSM Cell Phone Sites transmit 80 MHz above the Cell Phones, with 400 watts CDMA, and 800 watts TDMA average EIRP (1,640 watts max.)