

CATV - TV - FM Frequencies

Information Useful for Working Out RFI Problems

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 TV 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 TV Channel 2 it is 58.83 MHz.

The audio carrier is 4.5 MHz above the video carrier, so for TV Channel 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)
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.

Over the Air TV Channel Frequencies

| | | | |
|-------|----|--------|--------|
| 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 |

Cable TV Channel Frequencies

| | 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 | HYPERS |
| CATV | BB | 38 | 307.25 | 307.25 | 306.00 | HYPERS |
| CATV | CC | 39 | 313.25 | 313.25 | 312.00 | HYPERS |
| CATV | DD | 40 | 319.25 | 319.25 | 318.00 | HYPERS |
| CATV | EE | 41 | 325.25 | 325.25 | 324.00 | HYPERS |
| CATV | FF | 42 | 331.25 | 331.25 | 330.00 | HYPERS |
| CATV | GG | 43 | 337.25 | 337.25 | 336.00 | HYPERS |
| CATV | HH | 44 | 343.25 | 343.25 | 342.00 | HYPERS |
| CATV | II | 45 | 349.25 | 349.25 | 348.00 | HYPERS |
| CATV | JJ | 46 | 355.25 | 355.25 | 354.00 | HYPERS |

| | | | | | | |
|------|-----|----|--------|--------|--------|-------|
| 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 |

Commercial FM Channel Assignments

| | | | |
|----|----|-------|----|
| FM | 1 | 88.10 | FM |
| FM | 2 | 88.30 | FM |
| FM | 3 | 88.50 | FM |
| FM | 4 | 88.70 | FM |
| FM | 5 | 88.90 | FM |
| FM | 6 | 89.10 | FM |
| FM | 7 | 89.30 | FM |
| FM | 8 | 89.50 | FM |
| FM | 9 | 89.70 | FM |
| FM | 10 | 89.90 | FM |
| FM | 11 | 90.10 | FM |
| FM | 12 | 90.30 | FM |
| FM | 13 | 90.50 | FM |
| FM | 14 | 90.70 | FM |
| FM | 15 | 90.90 | FM |
| FM | 16 | 91.10 | FM |
| FM | 17 | 91.30 | FM |

| | | | |
|----|----|--------|----|
| FM | 18 | 91.50 | FM |
| FM | 19 | 91.70 | FM |
| FM | 20 | 91.90 | FM |
| FM | 21 | 92.10 | FM |
| FM | 22 | 92.30 | FM |
| FM | 23 | 92.50 | FM |
| FM | 24 | 92.70 | FM |
| FM | 25 | 92.90 | FM |
| FM | 26 | 93.10 | FM |
| FM | 27 | 93.30 | FM |
| FM | 28 | 93.50 | FM |
| FM | 29 | 93.70 | FM |
| FM | 30 | 93.90 | FM |
| FM | 31 | 94.10 | FM |
| FM | 32 | 94.30 | FM |
| FM | 33 | 94.50 | FM |
| FM | 34 | 94.70 | FM |
| FM | 35 | 94.90 | FM |
| FM | 36 | 95.10 | FM |
| FM | 37 | 95.30 | FM |
| FM | 38 | 95.50 | FM |
| FM | 39 | 95.70 | FM |
| FM | 40 | 95.90 | FM |
| FM | 41 | 96.10 | FM |
| FM | 42 | 96.30 | FM |
| FM | 43 | 96.50 | FM |
| FM | 44 | 96.70 | FM |
| FM | 45 | 96.90 | FM |
| FM | 46 | 97.10 | FM |
| FM | 47 | 97.30 | FM |
| FM | 48 | 97.50 | FM |
| FM | 49 | 97.70 | FM |
| FM | 50 | 97.90 | FM |
| FM | 51 | 98.10 | FM |
| FM | 52 | 98.30 | FM |
| FM | 53 | 98.50 | FM |
| FM | 54 | 98.70 | FM |
| FM | 55 | 98.90 | FM |
| FM | 56 | 99.10 | FM |
| FM | 57 | 99.30 | FM |
| FM | 58 | 99.50 | FM |
| FM | 59 | 99.70 | FM |
| FM | 60 | 99.90 | FM |
| FM | 61 | 100.10 | FM |
| FM | 62 | 100.30 | FM |
| FM | 63 | 100.50 | FM |
| FM | 64 | 100.70 | FM |
| FM | 65 | 100.90 | FM |
| FM | 66 | 101.10 | FM |
| FM | 67 | 101.30 | FM |
| FM | 68 | 101.50 | FM |
| FM | 69 | 101.70 | FM |
| FM | 70 | 101.90 | FM |
| FM | 71 | 102.10 | FM |
| FM | 72 | 102.30 | FM |
| FM | 73 | 102.50 | FM |
| FM | 74 | 102.70 | FM |

| | | | |
|----|-----|--------|----|
| FM | 75 | 102.90 | FM |
| FM | 76 | 103.10 | FM |
| FM | 77 | 103.30 | FM |
| FM | 78 | 103.50 | FM |
| FM | 79 | 103.70 | FM |
| FM | 80 | 103.90 | FM |
| FM | 81 | 104.10 | FM |
| FM | 82 | 104.30 | FM |
| FM | 83 | 104.50 | FM |
| FM | 84 | 104.70 | FM |
| FM | 85 | 104.90 | FM |
| FM | 86 | 105.10 | FM |
| FM | 87 | 105.30 | FM |
| FM | 88 | 105.50 | FM |
| FM | 89 | 105.70 | FM |
| FM | 90 | 105.90 | FM |
| FM | 91 | 106.10 | FM |
| FM | 92 | 106.30 | FM |
| FM | 93 | 106.50 | FM |
| FM | 94 | 106.70 | FM |
| FM | 95 | 106.90 | FM |
| FM | 96 | 107.10 | FM |
| FM | 97 | 107.30 | FM |
| FM | 98 | 107.50 | FM |
| FM | 98 | 107.70 | FM |
| FM | 100 | 107.90 | FM |

Channel 1: 26.965 Mhz.

Channel 2: 26.975 Mhz.

Channel 3: 26.985 Mhz.

Channel 4: 27.005 Mhz.

Channel 5: 27.015 Mhz.

Channel 6: 27.025 Mhz.

Channel 7: 27.035 Mhz.

Channel 8: 27.055 Mhz.

Channel 9: 27.065 Mhz.

Channel 10: 27.075 Mhz.

Channel 11: 27.085 Mhz.

Channel 12: 27.105 Mhz.

Channel 13: 27.115 Mhz.

Channel 14: 27.125 Mhz.

Channel 15: 27.135 Mhz.

Channel 16: 27.155 Mhz.

Channel 17: 27.165 Mhz.

Channel 18: 27.175 Mhz.

Channel 19: 27.185 Mhz.

Channel 20: 27.205 Mhz.

Channel 21: 27.215 Mhz.

Channel 22: 27.225 Mhz.
Channel 23: 27.255 Mhz.
Channel 24: 27.235 Mhz.
Channel 25: 27.245 Mhz.
Channel 26: 27.265 Mhz.
Channel 27: 27.275 Mhz.
Channel 28: 27.285 Mhz.
Channel 29: 27.295 Mhz.
Channel 30: 27.305 Mhz.
Channel 31: 27.315 Mhz.
Channel 32: 27.325 Mhz.
Channel 33: 27.335 Mhz.
Channel 34: 27.345 Mhz.
Channel 35: 27.355 Mhz.
Channel 36: 27.365 Mhz.
Channel 37: 27.375 Mhz.
Channel 38: 27.385 Mhz.
Channel 39: 27.395 Mhz.
Channel 40: 27.405 Mhz.