HAM101.com
Getting Started on Amateur Radio

HF • Class-by-Class

US / Region 2 • Technician, General & Amateur Extra

C: CW | D: CW + Data | P: Phone/Image + CW | S: SSB + CW | M: Mixed | No TX

Ranges in MHz unless stated. Each band has its own scale. Keep the entire signal inside your permitted segment.

80 / 75 m

FULL BAND 3.500–4.000 MHz

Technician	1 3.525–3.600 C	3.600–4.000 NO TX	
General	2 3.525–3.600 D	3.600–3.800 NO TX	3.800–4.000 P
Amateur Extra	3.500–3.600 D	3.600–4.000 P	

1: Technician 3.500–3.525 NO TX; 2: General 3.500–3.525 NO TX
Technician: CW only; 200 W PEP.

40 m

FULL BAND 7.000–7.300 MHz

Technician	1 7.025–7.125 C	7.125–7.300 NO TX	
General	2 7.025–7.125 D	7.125–7.175 NO TX	7.175–7.300 P
Amateur Extra	7.000–7.125 D	7.125–7.300 P	

1: Technician 7.000–7.025 NO TX; 2: General 7.000–7.025 NO TX
Technician: CW only; 200 W PEP. Continental-US mode boundaries shown.

20 m

FULL BAND 14.000–14.350 MHz

Technician	NO TX · 14.000–14.350		
General	1 14.025–14.150 D	14.150–14.225 NO TX	14.225–14.350 P
Amateur Extra	14.000–14.150 D	14.150–14.350 P	

1: General 14.000–14.025 NO TX

15 m

FULL BAND 21.000–21.450 MHz

Technician	1 21.025–21.200 C	21.200–21.450 NO TX	
General	2 21.025–21.200 D	21.200–21.275 NO TX	21.275–21.450 P
Amateur Extra	21.000–21.200 D	21.200–21.450 P	

1: Technician 21.000–21.025 NO TX; 2: General 21.000–21.025 NO TX
Technician: CW only; 200 W PEP.

10 m

FULL BAND 28.000–29.700 MHz

Technician	28.000–28.300 D	28.300–28.500 S	28.500–29.700 NO TX
General	28.000–28.300 D	28.300–29.700 P	
Amateur Extra	28.000–28.300 D	28.300–29.700 P	

Technician: 200 W PEP; SSB voice only. Below 29 MHz: modulation-index limit §97.307(f)(1).

HAM101.com
Getting Started on Amateur Radio

Shared HF & Special Bands

US / Region 2 • Technician, General & Amateur Extra

C: CW | D: CW + Data | P: Phone/Image + CW | S: SSB + CW | M: Mixed | No TX

Ranges in MHz unless stated. Each band has its own scale. Keep the entire signal inside your permitted segment.

160 m

FULL BAND 1.800–2.000 MHz

Technician	NO TX · 1.800–2.000
General	1.800–2.000 M
Amateur Extra	1.800–2.000 M

30 m

FULL BAND 10.100–10.150 MHz

Technician	NO TX · 10.100–10.150
General	10.100–10.150 D
Amateur Extra	10.100–10.150 D

200 W PEP maximum; no phone/image; secondary service.

17 m

FULL BAND 18.068–18.168 MHz

Technician	NO TX · 18.068–18.168	
General	18.068–18.110 D	18.110–18.168 P
Amateur Extra	18.068–18.110 D	18.110–18.168 P

12 m

FULL BAND 24.890–24.990 MHz

Technician	NO TX · 24.890–24.990	
General	24.890–24.930 D	24.930–24.990 P
Amateur Extra	24.890–24.930 D	24.930–24.990 P

C = CW • D = CW + RTTY/Data • P = Phone/Image + CW • S = SSB Phone + CW • M = Mixed. Red hatch = no transmitting privileges for that class. CQ is a call, not an emission mode.

60 m · General & Extra Only

Access	Frequency (kHz)	Maximum
Continuous segment	5351.5–5366.5	9.15 W ERP
Channel centers / CW carrier	5332 / 5348 / 5373 / 5405	100 W ERP
USB dial (carrier)	5330.5 / 5346.5 / 5371.5 / 5403.5	100 W ERP

CW, phone, RTTY/data; no image. Maximum bandwidth 2.8 kHz. Center channel emissions on the assigned center; USB dial is 1.5 kHz lower. Secondary access: yield to primary users. Technician: no TX.

LF / MF · General & Extra Only

Band	Full range (kHz)	Power limits
2200 m	135.7–137.8	1 W EIRP; 1500 W PEP
630 m	472–479	5 W EIRP; 500 W PEP

Both: CW, data, phone/image; Technician: no TX. Fixed sites only; notify UTC and wait 30 days; keep at least 1 km from affected PLC lines. Alaska within 800 km of Russia: 630 m limited to 1 W EIRP.

Recommended calling channels and local activity segments are operating conventions, not FCC allocations. Use regional band plans separately. This chart covers current Technician, General and Extra classes; legacy Novice / Advanced are not substituted for these classes.

HAM101.com
Getting Started on Amateur Radio

VHF Through Millimeter Waves

US / Region 2 • Technician, General & Amateur Extra

C: CW | D: CW + Data | P: Phone/Image + CW | S: SSB + CW | M: Mixed | No TX

Ranges in MHz unless stated. Each band has its own scale. Keep the entire signal inside your permitted segment.

Shared by Technician, General & Extra

Band	Permitted range	Modes / special limits
6 m	50.000–54.000 MHz	50.000–50.100: CW only; above: mixed
2 m	144.000–148.000 MHz	144.000–144.100: CW only; above: mixed
1.25 m	219.000–220.000 MHz	Fixed digital forwarding only; 50 W PEP; notice/consent rules
1.25 m	222.000–225.000 MHz	Mixed
70 cm	420.000–450.000 MHz	Mixed; Line A / geographic restrictions
33 cm	902.000–928.000 MHz	Mixed; TX exclusions in NM/TX and CO/WY
23 cm	1240.000–1300.000 MHz	Mixed; protect radionavigation and other primary services
13 cm	2300–2310; 2390–2450 MHz	Mixed; 2310–2390 is not an amateur allocation
9 cm	3.300–3.450 GHz	Secondary continuation under §2.106 US103; subject to cessation
5 cm	5.650–5.925 GHz	Mixed
3 cm	10.000–10.500 GHz	Mixed
1.2 cm	24.000–24.250 GHz	Mixed
6 mm	47.000–47.200 GHz	Mixed
4 mm	76.000–81.000 GHz	Mixed; 316 W peak EIRP maximum
2.5 mm	122.250–123.000 GHz	Mixed
2 mm	134.000–141.000 GHz	Mixed
1 mm	241.000–250.000 GHz	Mixed
Submillimeter	Above 275 GHz	Mixed; protect passive services under §97.303(f)

Mixed = CW, RTTY/data, phone/image (additional emissions vary by band). Minimum necessary power; normally 1500 W PEP unless limited here or by geography. Spread spectrum: 10 W PEP. 219–220 MHz: 30-day ARRL notice, AMTS notice within 640 km and written consent within 80 km. 70 cm: no 420–430 MHz north of Line A; designated areas limited to 50 W PEP. 33 cm: check §97.303(n) exclusion rectangles and §97.313(g) 50 W zone near White Sands. Microwave bands share spectrum; consult §97.303. 9 cm: continuation at 3.300–3.450 GHz under §2.106 US103, subject to cessation if harmful interference occurs. No amateur access at 3.450–3.500 GHz.