

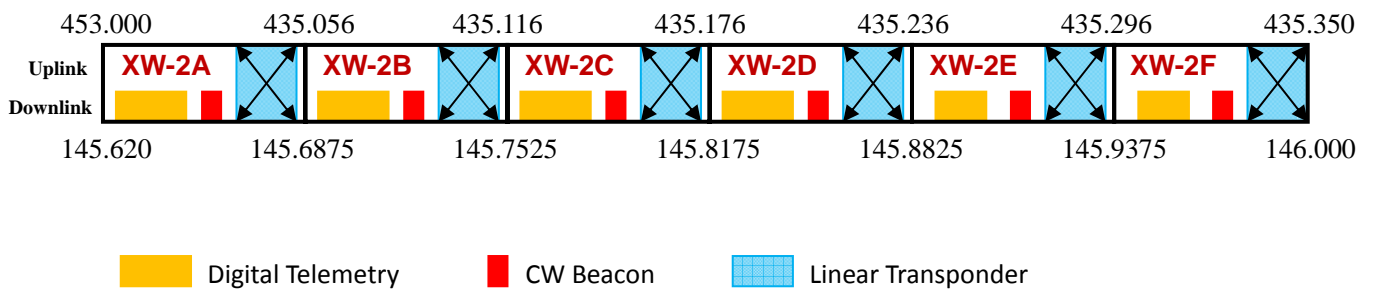
# XW-2(CAS-3) Satellites Frequency Allocation

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## 1. Antenna:

XW-2A through XW-2F are using the exact same type of antenna, they are quarter wavelength deployable monopole whip antennas and made of steel tape, Including a UHF uplink antenna and a VHF downlink antenna for each satellite.

## 2. Frequency Allocation Diagram:



## 3. XW-2 series of satellites:

### Uplink:

Satellite	Frequency (MHz)	Bandwidth (kHz)	Application
XW-2A (CAS-3A)	435.030 - 435.050	20	Linear Transponder (Spectrum Inverting)
XW-2B (CAS-3B)	435.090 - 435.110		
XW-2C (CAS-3C)	435.150 - 435.170		
XW-2D (CAS-3D)	435.210 - 435.230		
XW-2E (CAS-3E)	435.270 - 435.290		
XW-2F (CAS-3F)	435.330 - 435.350		

**Downlink:**

Satellite	Application	Frequency (MHz)	Bandwidth (kHz)	RF Power (dBm)	Modulation
<b>XW-2A (CAS-3A)</b>	Digital Telemetry	145.640	30	20	9.6/19.2kbps, GMSK
	CW Beacon	145.660	0.1	17	22wpm, CW
	Linear Transponder	145.665 - 145.685	20	20	
<b>XW-2B (CAS-3B)</b>	Digital Telemetry	145.705	30	20	9.6/19.2kbps, GMSK
	CW Beacon	145.725	0.1	17	22wpm, CW
	Linear Transponder	145.730 - 145.750	20	20	
<b>XW-2C (CAS-3C)</b>	Digital Telemetry	145.770	30	20	9.6/19.2kbps, GMSK
	CW Beacon	145.790	0.1	17	22wpm, CW
	Linear Transponder	145.795 - 145.815	20	20	
<b>XW-2D (CAS-3D)</b>	Digital Telemetry	145.835	30	20	9.6/19.2kbps, GMSK
	CW Beacon	145.855	0.1	17	22wpm, CW
	Linear Transponder	145.860 - 145.880	20	20	
<b>XW-2E (CAS-3E)</b>	Digital Telemetry	145.890	16	20	9.6kbps, GMSK
	CW Beacon	145.910	0.1	17	22wpm, CW
	Linear Transponder	145.915 - 145.935	20	20	
<b>XW-2F (CAS-3F)</b>	Digital Telemetry	145.955	16	20	9.6kbps, GMSK
	CW Beacon	145.975	0.1	17	22wpm, CW
	Linear Transponder	145.980 - 146.000	20	20	

**4. CAS-3 series of other satellites:**

Satellite	Emission direction	Application	Frequency (MHz)	Bandwidth (kHz)	Modulation
<b>DCBB (CAS-3G)</b>	Downlink	Digital Telemetry	145.475	16	9.6kbps, GMSK
			437.950		
<b>LilacSat -2 (CAS-3H)</b>	Uplink	APRS	144.390	16	AFSK
		FM Transponder	144.350	16	FM
	Downlink	APRS	144.390	16	AFSK
		CW Beacon	437.200	0.1	CW
		FM Transponder	437.225	16	FM
<b>NUDT-Phone-Sat (CAS-3I)</b>	Downlink	Digital Telemetry	437.300	28	9.6kbps, FSK