10/18/2020

Sunday, October 18, 2020 8:38 AM

Address field MSB, LSB situation… is bit 8 of A14 the LSB???

Address Field of Frame	
Destination Address Subfield	Source Address Subfield
A1 A2 A3 A4 A5 A6 A7	A8 A9 A10 A11 A12 A13 A14

Octet	ASCII	Bin Data	Hex Data
Flag		01111110	7E
A1	N	10011100	9C
A2	J	10010100	94
A3	7	01101110	6E
A4	P	10100000	A0
A5	space	01000000	40
A6	space	01000000	40
A7	SSID	11100000	E0
A8	N	10011100	9C
A9	7	01101110	6E
A10	L	10011000	98
A11	E	10001010	8A
A12	M	10011010	9A
A13	space	01000000	40
A14	SSID	01100001	61
Control	I	00111110	3E
PID	none	11110000	F0
FCS	part1	XXXXXXXX	HH
FCS	part2	XXXXXXXX	HH
Flag		01111110	7E
	Bit position	76543210	

Figure 3.4. Non-repeater AX.25 frame.

3. Frame Structure

Link layer packet radio transmissions are sent in small blocks of data, called frames.

There are three general types of AX.25 frames:

a) Information frame (I frame);
b) Supervisory frame (S frame); and
c) Unnumbered frame (U frame).

Each frame is made up of several smaller groups, called fields. Figures 3.1a and 3.1b illustrate the three basic types of frames. Note that the first bit to be transmitted is on the left side.

Flag	Address	Control	Info	FCS	Flag
01111110	112/224 Bits	8/16 Bits	N*8 Bits	16 Bits	01111110

Figure 3.1a. U and S frame construction.

Flag	Address	Control	PID	Info	FCS	Flag
01111110	112/224 Bits	8/16 Bits	8 Bits	N*8 Bits	16 Bits	01111110

Figure 3.1b. Information frame construction.

Notes:

- The Info field exists only in certain frames (Section 4.4.3)
- FCS is the Frame Check Sequence field (Section 4.4.6)
- PID is the Protocol Identifier field (Section 3.4)

Each field is made up of an integral number of octets (8-bit byte of binary data) and serves the specific function outlined below.

All fields except the Frame Check Sequence (FCS) are transmitted low-order bit first. FCS is transmitted bit 15 first.