ARQ FRAME > HEADER: 10 Bytes

ARQ HEADER				Callsign information		Payload	CRC
FRAMETYPE + CURRENT_FRAME	ARQ_TX_N_FRAMES_PER_BURST	ARQ_TX_N_CURRENT_ARQ_FRAME	ARQ_TX_N_TOTAL_ARQ_FRAMES	RECEIVER CALLSIGN	SENDER CALLSIGN	PAYLOAD DATA	FRAME CRC
1 Byte	1 Byte	2 Bytes	2 Bytes	1 Byte	1 Byte	(PAYLOAD_PER_FRAME) -10	2 Bytes
INT as BYTE	INT as BYTE	INT as BYTE	INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE	BYTES	CRC 16 as BYTE
(10-50) --> 10 + current frame	0-255	0 - 65536	0 - 65536				
The frametype is an INT 50 + the current frame number within a burst. We can detect if we have the first or last frame of a burst and we can preceise save frames to the RX buffer instead of just counting. This is important for ARQ Repeat	Here we set the total number of frames per burst. Combined with the frametype, we can detect if we received the first or last frame of a burst. This is also necessary to allocate the RX buffer and therefore to detect missing frames	This value determines the frame number within the total data frame. This is important for preceise saving to the data frame buffer and for decoding the entire data frame	This value determins the total number of frames, which are necessary for sending a data frame. This is really important for detecting the first and last ARQ frame of a data frame and to allocate the frame buffer	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	The payload data chunks	The freedv CRC

ARQ BURST ACK > HEADER: 5 Bytes

ARQ HEADER	Callsign information						CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN					FRAME CRC
1 Byte	1 Byte	1 Byte					2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE					CRC 16 as BYTE
60							
The ACK frame type for acknowledge of an ARQ burst	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.					The freedv CRC

ARQ FRAME ACK > HEADER: 5 Bytes

ARQ HEADER	Callsign information						CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN					FRAME CRC
1 Byte	1 Byte	1 Byte					2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE					CRC 16 as BYTE
61							
The ACK frame type for acknowledge of an data frame	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.					The freedv CRC

ARQ REPEAT REQUEST > HEADER: 11 Bytes

ARQ HEADER	Callsign information		ARQ REPEAT				CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN	REPEAT FRAME 1	REPEAT FRAME 2	REPEAT FRAME 3		FRAME CRC
1 Byte	1 Byte	1 Byte	2 Bytes	2 Bytes	2 Bytes		2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE	INT as BYTE	INT as BYTE	INT as BYTE		CRC 16 as BYTE
62			0 - 65536	0 - 65536	0 - 65536		
The ACK frame type for repeating of ARQ frames	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	The frame ID of a ARQ frame which needs to be repeated	The frame ID of a ARQ frame which needs to be repeated	The frame ID of a ARQ frame which needs to be repeated		The freedv CRC

ARQ CONNECT

ARQ HEADER	Callsign information		Full Callsign Sender				CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN	SENDER CALLSIGN				FRAME CRC
1 Byte	1 Byte	1 Byte	6 Bytes				2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE					CRC 16 as BYTE
220							
	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	Full callsign				The freedv CRC

ARQ CONNECT KEEP ALIVE

ARQ HEADER	Callsign information						CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN					FRAME CRC
1 Byte	1 Byte	1 Byte					2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE					CRC 16 as BYTE
221							
	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.					The freedv CRC

ARQ DISCONNECT

ARQ HEADER	Callsign information						CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN					FRAME CRC
1 Byte	1 Byte	1 Byte					2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE					CRC 16 as BYTE
222							
	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.					The freedv CRC

ARQ OPEN DATA CHANNEL

ARQ HEADER	Callsign information				DATA CHANNEL MODE		CRC
FRAMETYPE	RECEIVER CALLSIGN	SENDER CALLSIGN					FRAME CRC
1 Byte	1 Byte	1 Byte			1 Byte		2 Bytes
INT as BYTE	CRC 8 as BYTE	CRC 8 as BYTE			Int as BYTE		CRC 16 as BYTE
225					10,11,12		
	This is the receiver callsign as a CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.	This is the sender callsign as CRC 8 to reduce overhead. The complete callsigns are in the data frame header. This is important for selective receiving.					The freedv CRC