XDJ-X

All-in-one DJ system

Exchange protocol

Service commands

Assembly name:	Firmware version:
Display module	0.45
Mixer assy	0.26
Deck assy	0.12
Power manager	0.21

Last modified date:

17.03.2025

Content

General connection diagram exchange date:
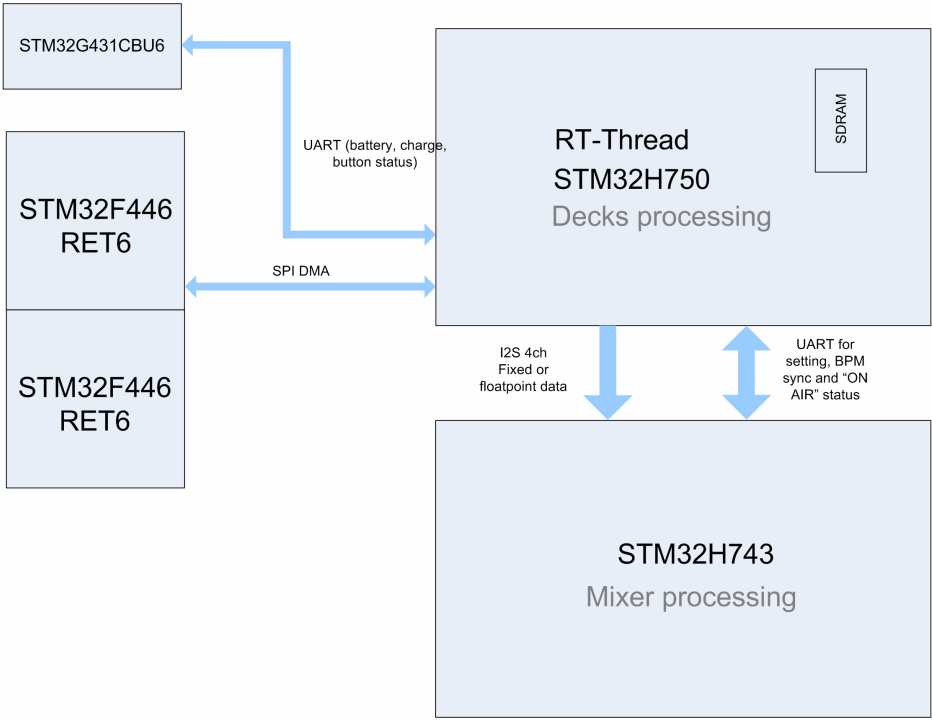
Display module <=> Power manager

UART transfer 115200 baud.

Power manager => Display module:

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Bytes	0xAX								0xXX							
Bits	1	0	1	0	0	0	X	X	X	X	X	X	X	X	X	X

Byte[0] - status:

A1: no AC

A2: AC charge

A3: full battery

Byte[1] - data:

0...100: charge precentage (when the value changes or on request)

0xFE: button pressed

0xFD: button unpressed

0xFC: shutdown command

Display module => Power manager:

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
Bytes	0xA1								0xXX							
Bits	1	0	1	0	0	0	0	1	X	X	X	X	X	X	X	X

Byte[0] = 0xA1

Byte[1]:

0x55: battery percentage request

0xFC: shutdown permission

Display module <=> Deck assy

SPI DMA transfer

Deck assy => Display module:

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
Bytes	ADC_PITCH_MSB								ADC_PITCH_LSB							
Bits	0x00	0x00	0x00	0x00	X	X	X	X	X	X	X	X	X	X	X	X

	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
Bytes	JOG_PULSE_CNT_MSB								JOG_PULSE_CNT_LSB							
Bits	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
Bytes	JOG_SPEED_MSB								JOG_SPEED_MSB							
Bits	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
Bytes	PADS								BUTTONS							
Bits	PD7	PD6	PD5	PD4	PD3	PD2	PD1	PD0	RLP	LP8	LP4	VNL	SLIP	REV	CUE	PLAY

	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
Bytes	BUTTONS								CRC							
Bits	0xFF	0x00	0xFF	0xFF	JSNS	TMP	NXT	PREV	X	X	X	X	X	X	X	X

ADC_PITCH 0…4095

JOG_PULSE_CNT 0…65535 16 bits resolution (3600 pulses per 1 round)

JOG_SPEED 0…65535 16 bits resolution   (when jog stopped speed = 65535)

CRC = (0byte + 1byte +…+8byte)%256

Display module => Deck assy:

	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
Bytes	NUM_P								PADn_RED							
Bits	0xFF	0xFF	0xFF	0xFF	0xFF	0xFF	X	X	R	R	R	R	R	R	R	R

	10	11	12	13	14	15	16	17	18	19	1A	1B	1C	1D	1E	1F
Bytes	PADn_GREEN								PADn_BLUE							
Bits	G	G	G	G	G	G	G	G	B	B	B	B	B	B	B	B

	20	21	22	23	24	25	26	27	28	29	2A	2B	2C	2D	2E	2F
Bytes	LEDS/VFD/JOG RING								LEDS							
Bits	0xFF	RNGr	RNGg	RNGb	MEMr	SNSr	VNLr	TMP	RLP	LP8	LP4	VNL	SLIP	REV	CUE	PLAY

	30	31	32	33	34	35	36	37	38	39	3A	3B	3C	3D	3E	3F
Bytes	SLIP_POS								CUE_POS							
Bits	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

	40	41	42	43	44	45	46	47	48	49	4A	4B	4C	4D	4E	4F
Bytes	PLAY_POS								CRC							
Bits	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

NUM_P package number and at the same time pad number
PADn_(RED, GREEN, BLUE) RGB 888 color for PAD[NUM_P]
RNGr, RNGg, RNGb – RGB bits <<[NUM_P]
MEMr, SNSr, VNLr – VFD segments
SLIP_POS 1…85. 0 –SLIP disable
CUE_POS 1…85. 0 –CUE without cue on jog display
PLAY_POS 1…135 – jog display position cursor 139 = power on animation 138 = eject
animation 137 = load in animation 136 = fill circle on display 0 = empty circle.
CRC = (0byte + 1byte +…+8byte)%256

Display module <=> Mixer assy

UART transfer 115200 baud.

Display module => Mixer assy:

Mixer assy => Display module:
ON AIR