UDP File Transfer (UFT) Protocol Specification

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1 Ethernet frame

Maximum data payload	1'500 Bytes
IP header	-20 bytes
UDP Header	-8 Bytes
Data	**1'472 Bytes**

D/C bit	-1 Bit
Transaction ID size	-31 Bit
Sequence number size	-4 Bytes
Remaining data size	1'464 Bytes

Max file size	4GB = 4'096MB = 4'194'304KB = 4'294'967'296 Bytes
N data packets	2'933'721

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2 Packet types

2.1 Control Packet

	0								1								2								3							
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
0	0	Command [6:0]							Command Data 1 [23:0]																							
4	Command Data 2 [31:0]																															
8	Padding 26 Bytes																															

2.2 Data Packet

	0								1								2								3							
	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7	0	1	2	3	4	5	6	7
0	1	Transaction ID [6:0]							Packet sequence number [23:0]																							
4	Data																															

3 Command Packet

3.1 Command list

Code	Short	Name	Data 1	Data 2
0x00	FTS	File transfer start	TCID	NSEQ
0x01	FTP	File transfer stop	TCID	0x0000 0000
0x02	ACKFP	Acknowledge data packet	TCID	SEQNBR
0x03	ACKFT	Acknowledge file transfer	TCID	0x0000 0000
0x04	USER	Set user registers in receiver	REG	data

3.2 FTS: File transfer start

Command field: 0x00
Data 1:   Transaction ID
Data 2:   Number of sequences to be transmitted

3.3 FTP: File transfer stop

Command field: 0x01
Data 1:   Transaction ID
Data 2:   0x0000 0000

3.4 ACKFP: Acknowledge data packet

Command field: 0x02
Data 1:   Transaction ID
Data 2:   Acknowledged sequence number

3.5 ACKFT: Acknowledge file transfer

Command field: 0x03
Data 1:   Transaction ID
Data 2:   0x0000 0000

3.6 USER: User register

Command field: 0x04
Data 1:   User register address
Data 2:   User register data