T2 Tile Packet Header Formats

VERSION 12

Packet header

T2 packet

DATE 2020-03-01

Packet length is 1..255 bytes. Transport layer must handle byte and packet framing.

BYTE 0 BYTE 1						BYTE 2								BYTE 3							BY	BYTE 4																		
7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0	7	6	5	4	3	2	1	0]
⊸																																								
ST	_																																							

EN2 0 0 0

Non-standard 0 ASCII7 ?→

Standard 1 0

Local standard	1	1	RSVO	TYP4	TYP3	TYP2	TYP1	TYP0	¬						
illegal	1	1	*	0	0	0	0	0	?-	•					
debug	1	1	*	0	0	0	0	1	?-	•					
value	1	1	*	0	0	0	1	0	? –	•					_
control	1	1	*	0	0	0	1	1	0	ASCII7:Code	0	ASCII7:PRU	0	ASCII7:DIR	
Packet sync	1	1	*	0	0	0	1	1	0	'P'	0	'0''1'	0	'0''2'	
Frame error	1	1	*	0	0	0	1	1	0	'F'	0	'0''1'	0	'0''2'	
Timeout	1	1	*	0	0	0	1	1	0	'T'	0	'0''1'	0	'0''2'	
Monitor	1	1	*	0	0	0	1	1	0	'M'	0	'0''1'	0	'3'	0

0

'0'..'1'

0

'0'..'3'

? →

Standard	1	LOCL	¬														
Routed standard	1	0	URG	OVR	ERR	SD2	SD1	SD0	?→								
Bulk	1	0	0	OVR	ERR	SD2	SD1	SD0	?→								
Urgent	1	0	1	OVR	ERR	SD2	SD1	SD0	MFM	¬							
Flash	1	0	1	OVR	ERR	SD2	SD1	SDO	0		Α	SC	117:0	Coc	le		?→
MFM	1	0	1	OVR	ERR	SD2	SD1	SD0	1	ITC	→						
ITC	1	0	1	OVR	ERR	SD2	SD1	SD0	1	1	RSV1	RSVO	SN3	SN2	SN1	ONS	?→
Event	1	0	1	OVR	ERR	SD2	SD1	SDO	1	0	?→						

Abbreviations: Code: Meaning

? Optional data not defined by this spec

* Reserved, should ignore on read, should be 0 on write

→ For rest of packet→ Defined below

ENn Enable status bit, prudir *n*ERR Error, corrupted packet
ITC Intertile Connection

LOCL Local packet moving PRU → ARM, but not PRU → PRU

MFM Movable Feast Machine

n Bit index counting from least significant bit is 0

OVR Overrun, packet too long

RSVn Reserved, bit *n*

SDn Packet source direction on read, destination direction on write, bit *n*

SNn State number, bit *n*

STND Standard packet format, defined by this spec

TYPn Type code, bit n

URG Urgent x 0 or 1