

VERSION 14
DATE 2020-05-11

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

BYTE 0	BYTE 1	BYTE 2	BYTE 3	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	

Packet header

↑

T2 packet

STND ↑

Non-standard

0	ASCII7	? →
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Standard

1 LOCAL ↑

Local standard

	1	1	RSV0	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
Packet sync	1	1	*	0	0	0	1	1	0
Frame error	1	1	*	0	0	0	1	1	0
Timeout	1	1	*	0	0	0	1	1	0
Monitor	1	1	*	0	0	0	1	1	0
reserved	1	1	*	0	0	0	1	1	0
reserved	1	1	*	0	0	0	1	1	1
reserved	1	1	*	0	0	1	x	x	? →
reserved	1	1	*	0	1	x	x	x	? →
reserved	1	1	*	1	x	x	x	x	? →

ASCII7:Code

0

ASCII7:PRU

0

ASCII7:DIR

0

'P'

0

'0'..'1'

0

'0'..'2'

0

'F'

0

'0'..'1'

0

'0'..'2'

0

'T'

0

'0'..'1'

0

'0'..'2'

0

'M'

0

'0'..'1'

0

'3'

0

0

0

0

0

0

0

EN2

EN1

EN2

..all other values..

0

'0'..'1'

0

'0'..'3'

0

'0'..'3'

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

0

Standard	LOC1	LOC2	LOC3	LOC4	LOC5	LOC6	LOC7	LOC8	LOC9	LOC10	LOC11	LOC12	LOC13	LOC14	LOC15	LOC16	LOC17	LOC18	LOC19	LOC20	LOC21	LOC22	LOC23	LOC24	LOC25	LOC26	LOC27	LOC28	LOC29	LOC30	LOC31	LOC32	LOC33	LOC34	LOC35	LOC36	LOC37	LOC38	LOC39	LOC40	LOC41	LOC42	LOC43	LOC44	LOC45	LOC46	LOC47	LOC48	LOC49	LOC50	LOC51	LOC52	LOC53	LOC54	LOC55	LOC56	LOC57	LOC58	LOC59	LOC60	LOC61	LOC62	LOC63	LOC64	LOC65	LOC66	LOC67	LOC68	LOC69	LOC70	LOC71	LOC72	LOC73	LOC74	LOC75	LOC76	LOC77	LOC78	LOC79	LOC80	LOC81	LOC82	LOC83	LOC84	LOC85	LOC86	LOC87	LOC88	LOC89	LOC90	LOC91	LOC92	LOC93	LOC94	LOC95	LOC96	LOC97	LOC98	LOC99	LOC100	LOC101	LOC102	LOC103	LOC104	LOC105	LOC106	LOC107	LOC108	LOC109	LOC110	LOC111	LOC112	LOC113	LOC114	LOC115	LOC116	LOC117	LOC118	LOC119	LOC120	LOC121	LOC122	LOC123	LOC124	LOC125	LOC126	LOC127	LOC128	LOC129	LOC130	LOC131	LOC132	LOC133	LOC134	LOC135	LOC136	LOC137	LOC138	LOC139	LOC140	LOC141	LOC142	LOC143	LOC144	LOC145	LOC146	LOC147	LOC148	LOC149	LOC150	LOC151	LOC152	LOC153	LOC154	LOC155	LOC156	LOC157	LOC158	LOC159	LOC160	LOC161	LOC162	LOC163	LOC164	LOC165	LOC166	LOC167	LOC168	LOC169	LOC170	LOC171	LOC172	LOC173	LOC174	LOC175	LOC176	LOC177	LOC178	LOC179	LOC180	LOC181	LOC182	LOC183	LOC184	LOC185	LOC186	LOC187	LOC188	LOC189	LOC190	LOC191	LOC192	LOC193	LOC194	LOC195	LOC196	LOC197	LOC198	LOC199	LOC200	LOC201	LOC202	LOC203	LOC204	LOC205	LOC206	LOC207	LOC208	LOC209	LOC210	LOC211	LOC212	LOC213	LOC214	LOC215	LOC216	LOC217	LOC218	LOC219	LOC220	LOC221	LOC222	LOC223	LOC224	LOC225	LOC226	LOC227	LOC228	LOC229	LOC230	LOC231	LOC232	LOC233	LOC234	LOC235	LOC236	LOC237	LOC238	LOC239	LOC240	LOC241	LOC242	LOC243	LOC244	LOC245	LOC246	LOC247	LOC248	LOC249	LOC250	LOC251	LOC252	LOC253	LOC254	LOC255	LOC256	LOC257	LOC258	LOC259	LOC260	LOC261	LOC262	LOC263	LOC264	LOC265	LOC266	LOC267	LOC268	LOC269	LOC270	LOC271	LOC272	LOC273	LOC274	LOC275	LOC276	LOC277	LOC278	LOC279	LOC280	LOC281	LOC282	LOC283	LOC284	LOC285	LOC286	LOC287	LOC288	LOC289	LOC290	LOC291	LOC292	LOC293	LOC294	LOC295	LOC296	LOC297	LOC298	LOC299	LOC300	LOC301	LOC302	LOC303	LOC304	LOC305	LOC306	LOC307	LOC308	LOC309	LOC310	LOC311	LOC312	LOC313	LOC314	LOC315	LOC316	LOC317	LOC318	LOC319	LOC320	LOC321	LOC322	LOC323	LOC324	LOC325	LOC326	LOC327	LOC328	LOC329	LOC330	LOC331	LOC332	LOC333	LOC334	LOC335	LOC336	LOC337	LOC338	LOC339	LOC340	LOC341	LOC342	LOC343	LOC344	LOC345	LOC346	LOC347	LOC348	LOC349	LOC350	LOC351	LOC352	LOC353	LOC354	LOC355	LOC356	LOC357	LOC358	LOC359	LOC360	LOC361	LOC362	LOC363	LOC364	LOC365	LOC366	LOC367	LOC368	LOC369	LOC370	LOC371	LOC372	LOC373	LOC374	LOC375	LOC376	LOC377	LOC378	LOC379	LOC380	LOC381	LOC382	LOC383	LOC384	LOC385	LOC386	LOC387	LOC388	LOC389	LOC390	LOC391	LOC392	LOC393	LOC394	LOC395	LOC396	LOC397	LOC398	LOC399	LOC400	LOC401	LOC402	LOC403	LOC404	LOC405	LOC406	LOC407	LOC408	LOC409	LOC410	LOC411	LOC412	LOC413	LOC414	LOC415	LOC416	LOC417	LOC418	LOC419	LOC420	LOC421	LOC422	LOC423	LOC424	LOC425	LOC426	LOC427	LOC428	LOC429	LOC430	LOC431	LOC432	LOC433	LOC434	LOC435	LOC436	LOC437	LOC438	LOC439	LOC440	LOC441	LOC442	LOC443	LOC444	LOC445	LOC446	LOC447	LOC448	LOC449	LOC450	LOC451	LOC452	LOC453	LOC454	LOC455	LOC456	LOC457	LOC458	LOC459	LOC460	LOC461	LOC462	LOC463	LOC464	LOC465	LOC466	LOC467	LOC468	LOC469	LOC470	LOC471	LOC472	LOC473	LOC474	LOC475	LOC476	LOC477	LOC478	LOC479	LOC480	LOC481	LOC482	LOC483	LOC484	LOC485	LOC486	LOC487	LOC488	LOC489	LOC490	LOC491	LOC492	LOC493	LOC494	LOC495	LOC496	LOC497	LOC498	LOC499	LOC500	LOC501	LOC502	LOC503	LOC504	LOC505	LOC506	LOC507	LOC508	LOC509	LOC510	LOC511	LOC512	LOC513	LOC514	LOC515	LOC516	LOC517	LOC518	LOC519	LOC520	LOC521	LOC522	LOC523	LOC524	LOC525	LOC526	LOC527	LOC528	LOC529	LOC530	LOC531	LOC532	LOC533	LOC534	LOC535	LOC536	LOC537	LOC538	LOC539	LOC540	LOC541	LOC542	LOC543	LOC544	LOC545	LOC546	LOC547	LOC548	LOC549	LOC550	LOC551	LOC552	LOC553	LOC554	LOC555	LOC556	LOC557	LOC558	LOC559	LOC560	LOC561	LOC562	LOC563	LOC564	LOC565	LOC566	LOC567	LOC568	LOC569	LOC570	LOC571	LOC572	LOC573	LOC574	LOC575	LOC576	LOC577	LOC578	LOC579	LOC580	LOC581	LOC582	LOC583	LOC584	LOC585	LOC586	LOC587	LOC588	LOC589	LOC590	LOC591	LOC592	LOC593	LOC594	LOC595	LOC596	LOC597	LOC598	LOC599	LOC600	LOC601	LOC602	LOC603	LOC604	LOC605	LOC606	LOC607	LOC608	LOC609	LOC610	LOC611	LOC612	LOC613	LOC614	LOC615	LOC616	LOC617	LOC618	LOC619	LOC620	LOC621	LOC622	LOC623	LOC624	LOC625	LOC626	LOC627	LOC628	LOC629	LOC630	LOC631	LOC632	LOC633	LOC634	LOC635	LOC636	LOC637	LOC638	LOC639	LOC640	LOC641	LOC642	LOC643	LOC644	LOC645	LOC646	LOC647	LOC648	LOC649	LOC650	LOC651	LOC652	LOC653	LOC654	LOC655	LOC656	LOC657	LOC658	LOC659	LOC660	LOC661	LOC662	LOC663	LOC664	LOC665	LOC666	LOC667	LOC668	LOC669	LOC670	LOC671	LOC672	LOC673	LOC674	LOC675	LOC676	LOC677	LOC678	LOC679	LOC680	LOC681	LOC682	LOC683	LOC684	LOC685	LOC686	LOC687	LOC688	LOC689	LOC690	LOC691	LOC692	LOC693	LOC694	LOC695	LOC696	LOC697	LOC698	LOC699	LOC700	LOC701	LOC702	LOC703	LOC704	LOC705	LOC706	LOC707	LOC708	LOC709	LOC710	LOC711	LOC712	LOC713	LOC714	LOC715	LOC716	LOC717	LOC718	LOC719	LOC720	LOC721	LOC722	LOC723	LOC724	LOC725	LOC726	LOC727	LOC728	LOC729	LOC730	LOC731	LOC732	LOC733	LOC734	LOC735	LOC736	LOC737	LOC738	LOC739	LOC740	LOC741	LOC742	LOC743	LOC744	LOC745	LOC746	LOC747	LOC748	LOC749	LOC750	LOC751	LOC752	LOC753	LOC754	LOC755	LOC756	LOC757	LOC758	LOC759	LOC760	LOC761	LOC762	LOC763	LOC764	LOC765	LOC766	LOC767	LOC768	LOC769	LOC770	LOC771	LOC772	LOC773	LOC774	LOC775	LOC776	LOC777	LOC778	LOC779	LOC780	LOC781	LOC782	LOC783	LOC784	LOC785	LOC786	LOC787	LOC788	LOC789	LOC790	LOC791	LOC792	LOC793	LOC794	LOC795	LOC796	LOC797	LOC798	LOC799	LOC800	LOC801	LOC802	LOC803	LOC804	LOC805	LOC806	LOC807	LOC808	LOC809	LOC810	LOC811	LOC812	LOC813	LOC814	LOC815	LOC816	LOC817	LOC818	LOC819	LOC820	LOC821	LOC822	LOC823	LOC824	LOC825	LOC826	LOC827	LOC828	LOC829	LOC830	LOC831	LOC832	LOC833	LOC834	LOC835	LOC836	LOC837	LOC838	LOC839	LOC840	LOC841	LOC842	LOC843	LOC844	LOC845	LOC846	LOC847	LOC848	LOC849	LOC850	LOC851	LOC852	LOC853	LOC854	LOC855	LOC856	LOC857	LOC858	LOC859	LOC860	LOC861	LOC862	LOC863	LOC864	LOC865	LOC866	LOC867	LOC868	LOC869	LOC870	LOC871	LOC872	LOC873	LOC874	LOC875	LOC876	LOC877	LOC878	LOC879	LOC880	LOC881	LOC882	LOC883	LOC884	LOC885	LOC886	LOC887	LOC888	LOC889	LOC890	LOC891	LOC892	LOC893	LOC894	LOC895	LOC896	LOC897	LOC898	LOC899	LOC900	LOC901	LOC902	LOC903	LOC904	LOC905	LOC906	LOC907	LOC908	LOC909	LOC910	LOC911	LOC912	LOC913	LOC914	LOC915	LOC916	LOC917	LOC918	LOC919	LOC920	LOC921	LOC922	LOC923	LOC924	LOC925	LOC926	LOC927	LOC928	LOC929	LOC930	LOC931	LOC932	LOC933	LOC934	LOC935	LOC936	LOC937	LOC938	LOC939	LOC940	LOC941	LOC942	LOC943	LOC944	LOC945	LOC946	LOC947	LOC948	LOC949	LOC950	LOC951	LOC952	LOC953	LOC954	LOC955	LOC956	LOC957	LOC958	LOC959	LOC960	LOC961	LOC962	LOC963	LOC964	LOC965	LOC966	LOC967	LOC968	LOC969	LOC970	LOC971	LOC972	LOC973	LOC974	LOC975	LOC976	LOC977	LOC978	LOC979	LOC980	LOC981	LOC982	LOC983	LOC984	LOC985	LOC986	LOC987	LOC988	LOC989	LOC990	LOC991	LOC992	LOC993	LOC994	LOC995	LOC996	LOC997	LOC998	LOC999	LOC1000
Routed standard	1	0	URG	OVER	ERR	SD2	SD1	SD0	?	?																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														</																																																																																																																																																																																																																																																																																																																																																																																																

Abbreviations:	Code:	Meaning
	?	Optional data not defined by this spec
	*	Reserved, should ignore on read, should be 0 on write

T2 Tile Packet Header FormatsVersion 14 Date **2020-05-11**

→	For rest of packet
↪	Defined below
ACT	Active, sender is performing an event
CTL	Circuit control packet
CN n	Circuit number, bit n
CD n	Command number, bit n
EN n	Enable status bit, prudir n
ERR	Error, corrupted packet
ITC	Intertile Connection
KITC	Kernel 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	Overflow, packet too long
RSV n	Reserved, bit n
SD n	Packet source direction on read, destination direction on write, bit n
SN n	State number, bit n
STND	Standard packet format, defined by this spec
TYP n	Type code, bit n
URG	Urgent
x	0 or 1
XITC	Extended ITC