

This is for reference only, and the definitive definitions are in the Standards

2015-02-08 23:43

Basic

General Datagrams need to be fragmented and defragmented into multiple CAN frames.

Description	Priority
Initialization; Error handling	0
Event transfer; Operation responses	1
Operation requests; Bulk data transfer responses	2
Bulk data transfer requests	3

Full-MTI bit	Description
14-15	Reserved
13	Special – Operationally special
12	Stream or Datagram – used by Gateways as indication to fragment.
10-11	Priority – indicates gross priority of message.
5-9	Type within priority
4	Simple protocol – (unaddressed) messages to be received by 'simple' nodes.
3	Address present – this message has an address.
2	Event present – this message has an event#.
0-1	Modifier within modifier type – message specific extra information

Title	R	R	Type	Variable Part (binary)	Source-alias (hex)
Reserved	1	1	0	0bxxxx xxxx xxxx	sss
Global	1	1	1	0bmmmm mmmm 0 mmm	sss
Addressed	1	1	1	0bmmmm mmmm 1 mmm	sss
Datagram Only	1	1	2	0bdddd dddd dddd	sss
Datagram First	1	1	3	0bdddd dddd dddd	sss
Datagram Middle	1	1	4	0bdddd dddd dddd	sss
Datagram Last	1	1	5	0bdddd dddd dddd	sss
Reserved	1	1	6	0bxxxx xxxx xxxx	sss
Stream	1	1	7	0bdddd dddd dddd	sss

KEY	r, R – reserved
	s, sss, ssss ssss ssss – source alias
	d, ddd, dddd dddd dddd – destination alias
	x, xxx, xxxx xxxx xxxx – undefined field

f = Flags				Frame
r	r	0	0	Only
r	r	0	1	First
r	r	1	0	Last
r	r	1	1	Middle
r = Send 0, don't check.				

General			CAN		
	Full MTI (Hex)	Data		CAN Header (hex)	Data-Part { } = optional
	Number of bits in field:	16	many	29	64
Basic	Initialization Complete	0100	Source	Initialization Complete	[19100sss] Full Source Node ID
	Verify Node ID Number Addressed	0498	Destination, Source	Verify Node ID Number Addressed	[19498sss] fddd {Full Node ID}
	Verify Node ID Number Global	0490	Source	Verify Node ID Number Global	[19490sss]
	Verified Node ID Number	0171	Source	Verified Node ID Number	[19171sss] {Full Source Node ID}
	Optional Interaction Rejected	0068	Destination, Source, error, optional	Optional Interaction Rejected	[19068sss] fddd, error, optional info
Protocol Support	Terminate Due to Error	00A8	Destination, Source, error, optional	Terminate Due to Error	[190A8sss] fddd, error, optional info
	Protocol Support Inquiry	0828	Destination, Source	Protocol Support Inquiry	[19828sss] fddd
	Protocol Support Reply	0668	Destination, Source, Protocol flags	Protocol Support Reply	[19668sss] fddd, Protocol flags
Event Exchange	Identify Consumer	08F4	EventID, Source	Identify Consumer	[198F4sss] EventID
	Consumer Identify Range	04A4	EventID with Mask, Source	Consumer Identify Range	[194A4sss] EventID with mask
	Consumer Identified w validity unknown	04C7	EventID, Source	Consumer Identified w validity unknown	[194C7sss] EventID
	Consumer Identified as currently valid	04C4	EventID, Source	Consumer Identified as currently valid	[194C4sss] EventID
	Consumer Identified as currently invalid	04C5	EventID, Source	Consumer Identified as currently invalid	[194C5sss] EventID
	Consumer Identified (reserved)	04C6	EventID, Source	Consumer Identified (reserved)	[194C6sss] EventID
	Identify Producer	0914	EventID, Source	Identify Producer	[19914sss] EventID
	Producer Identify Range	0524	EventID with Mask, Source	Producer Identify Range	[19524sss] EventID with mask
	Producer Identified w validity unknown	0547	EventID, Source	Producer Identified w validity unknown	[19547sss] EventID
	Producer Identified as currently valid	0544	EventID, Source	Producer Identified as currently valid	[19544sss] EventID
	Producer Identified as currently invalid	0545	EventID, Source	Producer Identified as currently invalid	[19545sss] EventID
	Producer Identified (reserved)	0546	EventID, Source	Producer Identified (reserved)	[19546sss] EventID
	Identify Events Addressed	0968	Destination, Source	Identify Events Addressed	[19968sss] fddd
	Identify Events Global	0970	Source	Identify Events Global	[19970sss]
	Learn Event	0594	EventID, Source	Learn Event	[19594sss] EventID
	Producer/Consumer Event Report	05B4	EventID, Source	Producer/Consumer Event Report	[195B4sss] EventID
Other Ident	Xpressnet	0820	Source, Xpressnet packet	Xpressnet	[19820sss] Xpressnet packet
	Simple Node Ident Info Request	0DE8	Destination, Source	Simple Node Ident Info Request	[19DE8sss] fddd
	Simple Node Ident Info Reply	0A08	Destination, Source, Data bytes	Simple Node Ident Info Reply	[19A08sss] fddd, data bytes
Datagram	Datagram Content	1C48	Destination, Source, Data bytes	CAN-Datagram Content (one frame)	[1Adddsss] Data (0-8 bytes)
				CAN-Datagram Content (first frame)	[1Bdddsss] Data (0-8 bytes)
				CAN-Datagram Content (middle frame)	[1Cdddsss] Data (0-8 bytes)
				CAN-Datagram Content (last frame)	[1Ddddsss] Data (0-8 bytes)
	Datagram Received OK	0A28	Destination, Source	Datagram Received OK	[19A28sss] fddd
	Datagram Rejected	0A48	Destination, Source, Error code	Datagram Rejected	[19A48sss] fddd, error code
Stream	Stream Initiate Request	0CC8	Destination, Source, Buffer size	Stream Initiate Request	[19CC8sss] fddd, buffer size, srcSID
	Stream Initiate Reply	0868	Destination, Source, Buffer size	Stream Initiate Reply	[19868sss] fddd, buffer size, srcSID
	Stream Data Send	1F88	Destination, Source, Data bytes	Stream Data Send	[1Fdddsss] Data (0-8 bytes)
	Stream Data Proceed	0888	Destination, Source, ID	Stream Data Proceed	[19888sss] fddd, srcSID, dstSID
	Stream Data Complete	08A8	Destination, Source, ID, {len}	Stream Data Complete	[198A8sss] fddd, srcSID, dstSID, { len }
Extra	Node number Allocate	2000	Source		
	No Filtering	2020	Source		