

This spreadsheet is obsolete. Please see the one in <http://openlcb.org/trunk/specs> instead

Name	Full 16 Bit MTI calculation						CAN Calculation						CAN MTI	CAN Content
	DID? EID? CAN Y/N/CY/N/Flags?	Simple Node	Priority MsGroup	Type (4 bits)	DID/EID/Flags (3 bits)	16 bits hex	Format 3 bits	Type Byte 8 bits hex	Flag bit A 0 default 1 bit	Flag bit B 1 default 1 bit	Flag bit C 0 default 1 bit	Flag bit D 1 default 1 bit	15 bits hex	This goes in OpenLCB CAN frame Variable Field Logical OR this with 0x18000 to get top 17 bits of CAN header ddd' refers to destination address
Base Messages														
Initialization Complete	N	N		0	8	0	3080	1	08					108F Full Source Node ID
Verify Node ID Number	Y	N	Y	0	10	4	30A4	6	dest NIDa					6ddd MTI byte 0x0A
Verify Node ID Number	N	N	Y	0	10	0	30A0	0	0A					00AF
Verified Node ID Number	N	N		0	11	0	30B0	1	0B					10BF Full Source Node ID
Protocol Support Inquiry	Y	N	Y	1	14	4	32E4	6	dest NIDa					6ddd MTI byte 0x2E
Protocol Support Reply	Y	N	Y	1	15	4	32F4	6	dest NIDa					6ddd MTI byte 0x2F, protocol flags
Optional Interaction Rejected	Y	N		0	12	4	30C4	6	dest NIDa					6ddd MTI byte 0x0C, MTI, error, optional information
Terminate Due to Error	Y	N		0	13	4	30D4	6	dest NIDa					6ddd MTI byte 0x0D, MTI, error, optional information
Event Exchange Messages														
Identify Consumers	N	Y	Y	1	4	2	3242	0	24					024F EventID (no room for DestID!)
Consumer Identify Range	N	Y		1	5	2	3252	1	25					125F EventID w mask (no room for DestID!)
Consumer Identified	N	Y	Y	1	6	3	3263	1	26	1	1	valid	uncertain	126F EventID (no room for DestID!)
Identify Producers	N	Y	Y	1	8	2	3282	0	28					028F EventID (no room for DestID!)
Producer Identify Range	N	Y		1	9	2	3292	1	29					129F EventID w mask (no room for DestID!)
Producer Identified	N	Y	Y	1	10	3	32A3	1	2A	1	1	valid	uncertain	12AF EventID (no room for DestID!)
Identify Events	Y	N	Y	1	11	4	32B4	6	dest NIDa					6ddd MTI byte 0x2B
Identify Events	N	N	Y	1	11	0	32B0	0	2B					02BF
Learn Event	N	Y	Y	1	12	2	32C2	0	2C					02CF EventID
Producer/Consumer Event Report	N	Y	Y	1	13	2	32D2	0	2D					02DF EventID
Datagram Messages														
Datagram (General)	Y	N	Y	2	0	4	3404	4,5	dest NIDa					4/5ddd Data (0-8 bytes)
Datagram Received OK	Y	N	Y	2	12	4	34C4	6	dest NIDa					6ddd MTI byte
Datagram Rejected	Y	N	Y	2	13	4	34D4	6	dest NIDa					6ddd MTI byte, error code
Stream Messages														
Stream Initiate Request	Y	N		2	14	4	34E4	6	dest NIDa					6ddd MTI byte, buffer size (2 bytes), Source Stream ID (1 byte), reserved byte, flags (tagged=0x80)
Stream Initiate Reply	Y	N		2	15	4	34F4	6	dest NIDa					6ddd MTI byte 0x4B, buffer size (2 bytes), Source Stream ID (1 byte), Dest Stream ID, flags (tagged=0x80; error info)
Stream Data Send	Y	N		3	9	4	3694	7	dest NIDa					7ddd (stream IDs inferred on CAN); 8 bytes data
Stream Data Proceed	Y	N		3	10	4	36A4	6	dest NIDa					7ddd MTI byte, Stream IDs (2 bytes)
Stream Data Complete	Y	N		3	11	4	36B4	6	dest NIDa					7ddd MTI byte, Stream IDs (2 bytes); optional length (4 bytes)
<div> <div>0 gets more priority</div> <div>coding</div> <div>1=carries EID</div> <div>2=carries DID</div> <div>Full value must be checked!</div> </div> <div> <div>0=simple MTI</div> <div>1=complex MTI</div> <div>4=DestID datagram</div> <div>5=DestID datagram last segment</div> <div>6=DestID non-Stream</div> <div>7=DestID stream data</div> </div> <div> <div>d=dest NIDa</div> <div>f=flags</div> </div> <div> <div>If flags not specified, send and check 1 bits</div> </div>														
Places these appear in code: <div> <div>prototypes/Arduino/libraries/OpenLCB/OpenLcbCan.h</div> <div>prototypes/CBUS-PIC/canlib/frametypes.c</div> </div>														