

CAN Filter Calculation for LAWICEL CANUSB & CAN232
Extended ID (29bit) - Dual Filter Mode

Input:	1	8	D	A															
Filter 1	ID.28	ID.27	ID.26	ID.25	ID.24	ID.23	ID.22	ID.21	ID.20	ID.19	ID.18	ID.17	ID.16	ID.15	ID.14	ID.13			
	1	1	0	0	0	1	1	0	1	1	0	1	0	X	X	X			
Filter 2	ID.28	ID.27	ID.26	ID.25	ID.24	ID.23	ID.22	ID.21	ID.20	ID.19	ID.18	ID.17	ID.16	ID.15	ID.14	ID.13			
	1	1	0	0	0	1	1	0	1	1	0	1	0	X	X	X			

Result:

	B.7	B.6	B.5	B.4	B.3	B.2	B.1	B.0	HEX
ACR0	1	1	0	0	0	1	1	0	C6
AMR0	0	0	0	0	0	0	0	0	0
ACR1	1	1	0	1	0	1	1	1	D7
AMR1	0	0	0	0	0	1	1	1	7
ACR2	1	1	0	0	0	1	1	0	C6
AMR2	0	0	0	0	0	0	0	0	0
ACR3	1	1	0	1	0	1	1	1	D7
AMR3	0	0	0	0	0	1	1	1	7

	32bit Value	ASCII command
ACR	0xD7C6D7C6	MC6D7C6D7[CR]
AMR	0x07000700	m00070007[CR]

This demo shows how to set up filters so that only ID=0x18DAxxxx passes through and all others are blocked. Note that both filters must be set otherwise ID's passes through the other.

Rules for bit calculation

Input bit patterns:
0 = Bit must be set to zero
1 = Bit must be set to one
X = Bit is don't care

Input:	Output in registers:
0	ACRn = 0 and AMRn = 0
1	ACRn = 1 and AMRn = 0
X	ACRn = 1 and AMRn = 1