

Please always cross check with arduino source code

	GROUP_0	GROUP_1	GROUP_2	GROUP_3	GROUP_4	GROUP_5	GROUP_6	GROUP_7
CHANEL_0	MASTER WARNING	STROBE	SEAT BELT	SPEED / MACH	PB_CPT_ENC_BARO	PB_FO_ENC_BARO	CPT_TERR_ON_ND	ENC_SPD_PUSH
CHANEL_1	MASTER CAUTION	BEACON	NO SMOKING	HDG / TRK	PB_CPT_BAROMODE	PB_FO_BAROMODE	FO_TERR_ON_ND	ENC_SPD_PULL
CHANEL_2	CPT_CHRONO	WINGS	MAN VS UP	METRIC_ALT	ENG_1_MASTER	BRAKES_FAN		ENC_HDG_PUSH
CHANEL_3	AUTOLAND	NAV & LOGO	MAN VS DOWN	AP1	ENG_2_MASTER	AUTOBRAKES_LO		ENC_HDG_PULL
CHANEL_4	FO_CHRONO	RWY TURN OFF	XBLEED SHUT	EXPED	IGN_MODE_CRANK	AUTOBRAKES_MED		ENC_ALT_PUSH
CHANEL_5	GPWS/GS	LAND LEFT	XBLEET OPEN	APPR	IGN_MODE_START	AUTOBRAKES_MAX		ENC_ALT_PULL
CHANEL_6		LAND RIGHT	PACK FLOW LOW	AP2	SPOILERS	ANTI_SKID		ENC_VS_PUSH
CHANEL_7	LOC	NOSE	PACK FLOW HIGH	ATHR	PARK BRAKES	GEAR_CTRL		ENC_VS_PULL

	GROUP_0	GROUP_1	GROUP_2	GROUP_3	GROUP_4	GROUP_5	GROUP_6	GROUP_7
BUS_@0	CPT_ND_MODE	CPT_ND_RANGE	FO_ND_MODE	FO_ND_RANGE	CPT_PUSH_BUTTONS	FO_PUSH_BUTTONS	ADIRS_DISPLAY_DATA	
BUS_@1	CPT_ND_MODE	CPT_ND_RANGE	FO_ND_MODE	FO_ND_RANGE	CPT_PUSH_BUTTONS	FO_PUSH_BUTTONS	ADIRS_DISPLAY_DATA	
BUS_@2	CPT_ND_MODE	CPT_ND_RANGE	FO_ND_MODE	FO_ND_RANGE	CPT_PUSH_BUTTONS	FO_PUSH_BUTTONS	ADIRS_DISPLAY_DATA	
BUS_ADF	CPT_ND_ADF1	CPT_ND_ADF2	FO_ND_ADF2	FO_ND_ADF1	IR1_NAV	IR2_NAV	IR3_NAV	ADIRS_DISPLAY_SYS1
BUS_VOR	CPT_ND_VOR1	CPT_ND_VOR2	FO_ND_VOR2	FO_ND_VOR1	IR1_ATT	IR2_ATT	IR3_ATT	ADIRS_DISPLAY_SYS2

	SPD_DISPLAY	HDG_DISPLAY	VS_DISPLAY
2_BIT7	AFF_A	AFF_A	AFF_A
2_BIT6	AFF_B	AFF_B	AFF_B
2_BIT5	AFF_C	AFF_C	AFF_C
2_BIT4	SPD_DOT	LAT_DOT	ALT_DOT
2_BIT3	AFF_D	AFF_D	AFF_D
2_BIT2	AFF_E	AFF_E	AFF_E
2_BIT1	AFF_F	AFF_F	AFF_F
2_BIT0	AFF_G	AFF_G	AFF_G
25 3_BIT7	LOC	MASTER WARNING [CPT T3]	AFF_A
26 3_BIT6	AP1	MASTER CAUTION [CPT T2]	AFF_B
27 3_BIT5	AP2	AUTOLAND [CPT T1]	AFF_C
28 3_BIT4	ATHR	CPT_FD	MODE_TRK/FPA
29 3_BIT3	EXPED	CPT_LS	AFF_D
30 3_BIT2	APPR	CPT_SSPRIO [CPT T0]	AFF_E
31 3_BIT1	CPT_SSPRIO_LED (SPARE)	FO_FD	AFF_F
32 3_BIT0	POWER	FO_LS	AFF_G
33 4_BIT7	AUTO BRAKES MAX [FO_T3]	FO_SSPRIO [FO T0]	MODE MACH
34 4_BIT6	AUTO BRAKES MED [FO_T2]	GPWS/GS [MAIN_T0]	CPT_TERR_ON_ND [MAIN T2]
35 4_BIT5	AUTO BRAKES LO [FO_T1]	BRAKES HOT [MAIN T1]	FO_TERR_ON_ND [MAIN T3]

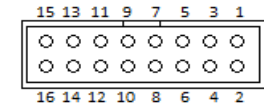
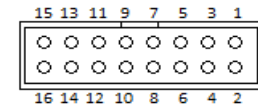
Orange overlighted data are not used in the current simu version

HE 10 VS		
HE PIN	FUNCTION	ARDUINO PIN
1	ENC_VS_B	4
2	ENC_VS_A	3
3	GND	54
4	GND	54
5	Vcc	
6	Vcc	
7	ENC_VS_PUSH_GROUP7	28
8	ENC_VS_PUSH_CHANEL5	33
9	ENC_VS_PULL_GROUP7	28
10	ENC_VS_PULL_CHANEL4	35

HE 10 HDG		
HE PIN	FUNCTION	ARDUINO PIN
1	ENC_HDG_B	6
2	ENC_HDG_A	2
3	GND	54
4	GND	54
5	Vcc	
6	Vcc	
7	ENC_HDG_PUSH_GROUP7	28
8	ENC_HDG_PUSH_CHANEL0	43
9	ENC_HDG_PULL_GROUP7	28
10	ENC_HDG_PULL_CHANEL1	41

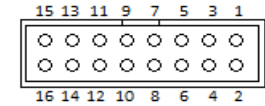
HE 10 ALT		
HE PIN	FUNCTION	ARDUINO PIN
1	ENC_ALT_B	14
2	ENC_ALT_A	18
3	GND	54
4	GND	54
5	Vcc	
6	Vcc	
7	ENC_ALT_PUSH_GROUP7	28
8	ENC_ALT_PUSH_CHANEL7	29
9	ENC_ALT_PULL_GROUP7	28
10	ENC_ALT_PULL_CHANEL6	31

HE 10 SPD		
HE PIN	FUNCTION	ARDUINO PIN
1	ENC_SPD_B	15
2	ENC_SPD_A	19
3	GND	54
4	GND	54
5	Vcc	
6	Vcc	
7	ENC_SPD_PUSH_GROUP7	28
8	ENC_SPD_PUSH_CHANEL	39
9	ENC_SPD_PULL_GROUP7	28
10	ENC_SPD_PULL_CHANEL	37



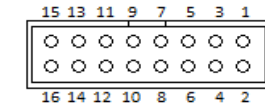
HE 16 FO-EFIS		
HE PIN	FUNCTION	ARDUINO PIN
1	ENC_FO_BARO_B	16
2	ENC_FO_BARO_A	20
3	SELEC_ADO	23
4	SELEC_AD1	22
5	SELEC_AD2	24
6	FO_SSPRIO_LED	
7	SELECT_ADF	27
8	SELECT_VOR	25
9	FO_FD_LED	
10	AUTOBRK_MIN	
11	FO_LS_LED	
12	AUTOBRK_MED	
13	FO_SSPRIO_LIGHT	
14	AUTOBRK_MAX	
15	Vcc	
16	GND	54

HE 16 CPT-EFIS		
HE PIN	FUNCTION	ARDUINO PIN
1	ENC_CPT_BARO_B	17
2	ENC_CPT_BARO_A	21
3	SELEC_ADO	23
4	SELEC_AD1	22
5	CPT_SSPRIO_LED	
6	SELEC_AD2	24
7	SELECT_ADF	27
8	SELECT_VOR	25
9	CPT_FD_LED	
10	MASTER_WARNING	
11	CPT_LS_LED	
12	MASTER_CAUTION	
13	CPT_SSPRIO_LIGHT	
14	AUTOLAND	
15	Vcc	
16	GND	54

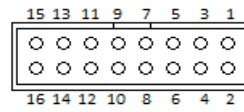


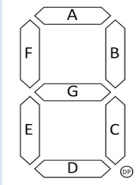
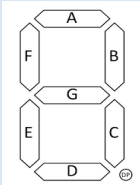
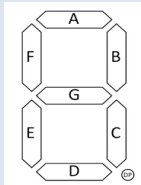
HE 16 SPARE DIGITAL		
HE PIN	FUNCTION	ARDUINO PIN
1	SPARE 1	1
2	SPARE 2	0
3	SPARE 3	5
4	SPARE 4	26
5	SPARE 5	45
6	SPARE 6	44
7	SPARE 7	47
8	SPARE 8	46
9	SPARE 9	49
10	SPARE 10	48
11	SPARE 11	51
12	SPARE 12	50
13	SPARE 13	53
14	SPARE 14	52
15	Vcc	
16	GND	54

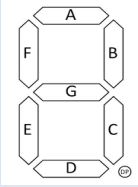
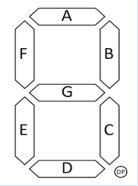
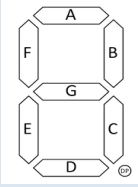
HE 16 ANALOG		
HE PIN	FUNCTION	ARDUINO PIN
1	Vcc	5v
2	A1	A1
3	Vcc	5v
4	A0	A0
5	Vcc	5v
6	A2	A2
7	Vcc	5v
8	A3	A3
9	GND	54
10	A4	A4
11	GND	54
12	A5	A5
13	GND	54
14	A6	A6
15	GND	54
16	A7	A7

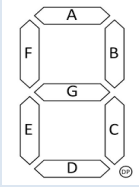
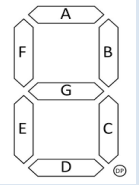
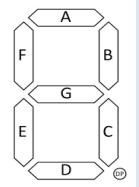


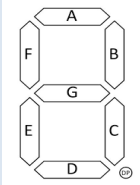
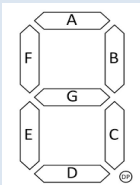
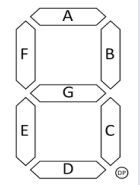
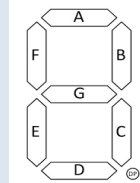
HE 16 PB		
HE PIN	FUNCTION	ARDUINO PIN
1	GROUP0	42
2	CHANEL0	43
3	GROUP1	40
4	CHANEL1	41
5	GROUP2	38
6	CHANEL2	39
7	GROUP3	36
8	CHANEL3	37
9	GROUP4	34
10	CHANEL4	35
11	GROUP5	32
12	CHANEL5	33
13	GROUP6	30
14	CHANEL6	31
15	GROUP7	28
16	CHANEL7	29



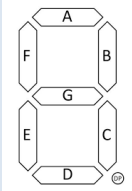
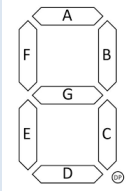
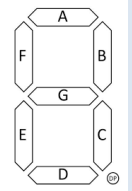
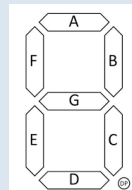
SPD_DISPLAY				
MM5451 Output 1	<b>0_BIT7</b>	AFF_A	Hundreds	
MM5451 Output 2	<b>0_BIT6</b>	AFF_B		
MM5451 Output 3	<b>0_BIT5</b>	AFF_C		
MM5451 Output 4	<b>0_BIT4</b>	AFF_P		
MM5451 Output 5	<b>0_BIT3</b>	AFF_D		
MM5451 Output 6	<b>0_BIT2</b>	AFF_E		
MM5451 Output 7	<b>0_BIT1</b>	AFF_F		
MM5451 Output 8	<b>0_BIT0</b>	AFF_G		
MM5451 Output 9	<b>1_BIT7</b>	AFF_A	Tens	
MM5451 Output 10	<b>1_BIT6</b>	AFF_B		
MM5451 Output 11	<b>1_BIT5</b>	AFF_C		
MM5451 Output 12	<b>1_BIT4</b>	AFF_P		
MM5451 Output 13	<b>1_BIT3</b>	AFF_D		
MM5451 Output 14	<b>1_BIT2</b>	AFF_E		
MM5451 Output 15	<b>1_BIT1</b>	AFF_F		
MM5451 Output 16	<b>2_BIT0</b>	AFF_G		
MM5451 Output 17	<b>2_BIT7</b>	AFF_A	Units	
MM5451 Output 18	<b>2_BIT6</b>	AFF_B		
MM5451 Output 19	<b>2_BIT5</b>	AFF_C		
MM5451 Output 20	<b>2_BIT4</b>	SPD DOT		
MM5451 Output 21	<b>2_BIT3</b>	AFF_D		
MM5451 Output 22	<b>2_BIT2</b>	AFF_E		
MM5451 Output 23	<b>2_BIT1</b>	AFF_F		
MM5451 Output 24	<b>2_BIT0</b>	AFF_G		
MM5451 Output 25	<b>3_BIT7</b>	LOC	Miscellaneous	
MM5451 Output 26	<b>3_BIT6</b>	AP1		
MM5451 Output 27	<b>3_BIT5</b>	AP2		
MM5451 Output 28	<b>3_BIT4</b>	ATHR		
MM5451 Output 29	<b>3_BIT3</b>	EXPED		
MM5451 Output 30	<b>3_BIT2</b>	APPR		
MM5451 Output 31	<b>3_BIT1</b>	CPT_SSPRIO_LED (SPARE)		
MM5451 Output 32	<b>3_BIT0</b>	POWER		
MM5451 Output 33	<b>4_BIT7</b>	AUTO BRAKES MAX [FO_T3]		
MM5451 Output 34	<b>4_BIT6</b>	AUTO BRAKES MED [FO_T2]		
MM5451 Output 35	<b>4_BIT5</b>	AUTO BRAKES LO [FO_T1]		

HDG_DISPLAY				
MM5451 Output 1	<b>0_BIT7</b>	AFF_A	Hundreds	
MM5451 Output 2	<b>0_BIT6</b>	AFF_B		
MM5451 Output 3	<b>0_BIT5</b>	AFF_C		
MM5451 Output 4	<b>0_BIT4</b>	AFF_P		
MM5451 Output 5	<b>0_BIT3</b>	AFF_D		
MM5451 Output 6	<b>0_BIT2</b>	AFF_E		
MM5451 Output 7	<b>0_BIT1</b>	AFF_F		
MM5451 Output 8	<b>0_BIT0</b>	AFF_G		
MM5451 Output 9	<b>1_BIT7</b>	AFF_A	Tens	
MM5451 Output 10	<b>1_BIT6</b>	AFF_B		
MM5451 Output 11	<b>1_BIT5</b>	AFF_C		
MM5451 Output 12	<b>1_BIT4</b>	AFF_P		
MM5451 Output 13	<b>1_BIT3</b>	AFF_D		
MM5451 Output 14	<b>1_BIT2</b>	AFF_E		
MM5451 Output 15	<b>1_BIT1</b>	AFF_F		
MM5451 Output 16	<b>2_BIT0</b>	AFF_G	Units	
MM5451 Output 17	<b>2_BIT7</b>	AFF_A		
MM5451 Output 18	<b>2_BIT6</b>	AFF_B		
MM5451 Output 19	<b>2_BIT5</b>	AFF_C		
MM5451 Output 20	<b>2_BIT4</b>	LAT DOT		
MM5451 Output 21	<b>2_BIT3</b>	AFF_D		
MM5451 Output 22	<b>2_BIT2</b>	AFF_E		
MM5451 Output 23	<b>2_BIT1</b>	AFF_F		
MM5451 Output 24	<b>2_BIT0</b>	AFF_G	Miscellaneous	
MM5451 Output 25	<b>3_BIT7</b>	MASTER WARNING [CPT T3]		
MM5451 Output 26	<b>3_BIT6</b>	MASTER CAUTION [CPT T2]		
MM5451 Output 27	<b>3_BIT5</b>	AUTOLAND [CPT T1]		
MM5451 Output 28	<b>3_BIT4</b>	CPT_FD		
MM5451 Output 29	<b>3_BIT3</b>	CPT_LS		
MM5451 Output 30	<b>3_BIT2</b>	CPT_SSPRIO [CPT T0]		
MM5451 Output 31	<b>3_BIT1</b>	FO_FD		
MM5451 Output 32	<b>3_BIT0</b>	FO_LS		
MM5451 Output 33	<b>4_BIT7</b>	FO_SSPRIO [FO T0]		
MM5451 Output 34	<b>4_BIT6</b>	GPWS/GS [MAIN_T0]		
MM5451 Output 35	<b>4_BIT5</b>	BRAKES HOT [MAIN T1]		

ALT_DISPLAY			
MM5451 Output 1	<b>0_BIT7</b>	AFF_A	Ten Thousands 
MM5451 Output 2	<b>0_BIT6</b>	AFF_B	
MM5451 Output 3	<b>0_BIT5</b>	AFF_C	
MM5451 Output 4	<b>0_BIT4</b>	AFF_D	
MM5451 Output 5	<b>0_BIT3</b>	AFF_E	
MM5451 Output 6	<b>0_BIT2</b>	AFF_F	
MM5451 Output 7	<b>0_BIT1</b>	AFF_G	
MM5451 Output 8	<b>0_BIT0</b>	AFF_A	
MM5451 Output 9	<b>1_BIT7</b>	AFF_B	
MM5451 Output 10	<b>1_BIT6</b>	AFF_C	
MM5451 Output 11	<b>1_BIT5</b>	AFF_D	
MM5451 Output 12	<b>1_BIT4</b>	AFF_E	
MM5451 Output 13	<b>1_BIT3</b>	AFF_F	
MM5451 Output 14	<b>1_BIT2</b>	AFF_G	
MM5451 Output 15	<b>1_BIT1</b>	AFF_A	Hundreds 
MM5451 Output 16	<b>2_BIT0</b>	AFF_B	
MM5451 Output 17	<b>2_BIT7</b>	AFF_C	
MM5451 Output 18	<b>2_BIT6</b>	AFF_D	
MM5451 Output 19	<b>2_BIT5</b>	AFF_E	
MM5451 Output 20	<b>2_BIT4</b>	AFF_F	
MM5451 Output 21	<b>2_BIT3</b>	AFF_G	
MM5451 Output 22	<b>2_BIT2</b>	AFF_A	
MM5451 Output 23	<b>2_BIT1</b>	AFF_B	
MM5451 Output 24	<b>2_BIT0</b>	AFF_C	
MM5451 Output 25	<b>3_BIT7</b>	AFF_D	
MM5451 Output 26	<b>3_BIT6</b>	AFF_E	
MM5451 Output 27	<b>3_BIT5</b>	AFF_F	
MM5451 Output 28	<b>3_BIT4</b>	AFF_G	
MM5451 Output 29	<b>3_BIT3</b>	AFF_A	Units 
MM5451 Output 30	<b>3_BIT2</b>	AFF_B	
MM5451 Output 31	<b>3_BIT1</b>	AFF_C	
MM5451 Output 32	<b>3_BIT0</b>	AFF_D	
MM5451 Output 33	<b>4_BIT7</b>	AFF_E	
MM5451 Output 34	<b>4_BIT6</b>	AFF_F	
MM5451 Output 35	<b>4_BIT5</b>	AFF_G	

VS_DISPLAY				
MM5451 Output 1	<b>0_BIT7</b>	AFF_A	Thousands	
MM5451 Output 2	<b>0_BIT6</b>	AFF_B		
MM5451 Output 3	<b>0_BIT5</b>	AFF_C		
MM5451 Output 4	<b>0_BIT4</b>	NEGATIVE_VS		
MM5451 Output 5	<b>0_BIT3</b>	AFF_D		
MM5451 Output 6	<b>0_BIT2</b>	AFF_E		
MM5451 Output 7	<b>0_BIT1</b>	AFF_F		
MM5451 Output 8	<b>0_BIT0</b>	AFF_G		
MM5451 Output 9	<b>1_BIT7</b>	AFF_A	Hundreds	
MM5451 Output 10	<b>1_BIT6</b>	AFF_B		
MM5451 Output 11	<b>1_BIT5</b>	AFF_C		
MM5451 Output 12	<b>1_BIT4</b>	AFF_P		
MM5451 Output 13	<b>1_BIT3</b>	AFF_D		
MM5451 Output 14	<b>1_BIT2</b>	AFF_E		
MM5451 Output 15	<b>1_BIT1</b>	AFF_F		
MM5451 Output 16	<b>2_BIT0</b>	AFF_G	Tens	
MM5451 Output 17	<b>2_BIT7</b>	AFF_A		
MM5451 Output 18	<b>2_BIT6</b>	AFF_B		
MM5451 Output 19	<b>2_BIT5</b>	AFF_C		
MM5451 Output 20	<b>2_BIT4</b>	ALT DOT		
MM5451 Output 21	<b>2_BIT3</b>	AFF_D		
MM5451 Output 22	<b>2_BIT2</b>	AFF_E		
MM5451 Output 23	<b>2_BIT1</b>	AFF_F		
MM5451 Output 24	<b>2_BIT0</b>	AFF_G	Units	
MM5451 Output 25	<b>3_BIT7</b>	AFF_A		
MM5451 Output 26	<b>3_BIT6</b>	AFF_B		
MM5451 Output 27	<b>3_BIT5</b>	AFF_C		
MM5451 Output 28	<b>3_BIT4</b>	MODE TRK/FPA		
MM5451 Output 29	<b>3_BIT3</b>	AFF_D		
MM5451 Output 30	<b>3_BIT2</b>	AFF_E		
MM5451 Output 31	<b>3_BIT1</b>	AFF_F		
MM5451 Output 32	<b>3_BIT0</b>	AFF_G	Miscellaneous	
MM5451 Output 33	<b>4_BIT7</b>	MODE MACH		
MM5451 Output 34	<b>4_BIT6</b>	CPT_TERR_ON_ND [MAIN T2]		
MM5451 Output 35	<b>4_BIT5</b>	FO_TERR_ON_ND [MAIN T3]		



CPT / FO BARO				
MM5451 Output 1	<b>0_BIT7</b>	AFF_A	Thousands	
MM5451 Output 2	<b>0_BIT6</b>	AFF_B		
MM5451 Output 3	<b>0_BIT5</b>	AFF_C		
MM5451 Output 4	<b>0_BIT4</b>	AFF_P		
MM5451 Output 5	<b>0_BIT3</b>	AFF_D		
MM5451 Output 6	<b>0_BIT2</b>	AFF_E		
MM5451 Output 7	<b>0_BIT1</b>	AFF_F		
MM5451 Output 8	<b>0_BIT0</b>	AFF_G		
MM5451 Output 9	<b>1_BIT7</b>	AFF_A	Hundreds	
MM5451 Output 10	<b>1_BIT6</b>	AFF_B		
MM5451 Output 11	<b>1_BIT5</b>	AFF_C		
MM5451 Output 12	<b>1_BIT4</b>	AFF_P		
MM5451 Output 13	<b>1_BIT3</b>	AFF_D		
MM5451 Output 14	<b>1_BIT2</b>	AFF_E		
MM5451 Output 15	<b>1_BIT1</b>	AFF_F		
MM5451 Output 16	<b>2_BIT0</b>	AFF_G		
MM5451 Output 17	<b>2_BIT7</b>	AFF_A	Tens	
MM5451 Output 18	<b>2_BIT6</b>	AFF_B		
MM5451 Output 19	<b>2_BIT5</b>	AFF_C		
MM5451 Output 20	<b>2_BIT4</b>	AFF_P		
MM5451 Output 21	<b>2_BIT3</b>	AFF_D		
MM5451 Output 22	<b>2_BIT2</b>	AFF_E		
MM5451 Output 23	<b>2_BIT1</b>	AFF_F		
MM5451 Output 24	<b>2_BIT0</b>	AFF_G		
MM5451 Output 25	<b>3_BIT7</b>	AFF_A	Units	
MM5451 Output 26	<b>3_BIT6</b>	AFF_B		
MM5451 Output 27	<b>3_BIT5</b>	AFF_C		
MM5451 Output 28	<b>3_BIT4</b>	AFF_P		
MM5451 Output 29	<b>3_BIT3</b>	AFF_D		
MM5451 Output 30	<b>3_BIT2</b>	AFF_E		
MM5451 Output 31	<b>3_BIT1</b>	AFF_F		
MM5451 Output 32	<b>3_BIT0</b>	AFF_G		
MM5451 Output 33	<b>4_BIT7</b>	SELECTOR LED 0	LEDS ARPT,NDB,VOR,WPT,CSTR	
MM5451 Output 34	<b>4_BIT6</b>	SELECTOR LED 1		
MM5451 Output 35	<b>4_BIT5</b>	SELECTOR LED 2		