RECIVERS DEWAR CONTROLS

REMOTE CONTROLS

COMMENTS

S.Ware Refer.	H.Ware Refer.	Signals Lable Name	Electrical Functions	Ext I/O Bits Value	SWare I/O Bits Value		MF22GHz	7GHz Tolerance (Location)	L-P		
OL2											
I 19	IN 3	REMOTE/LOCAL	Light = Remote Unlight = Local	0 1	1 0		NO	NO	NO		
O 0	OUT 0	SYNT1_SEL/SYNT2_SEL	Opened = SYNT1 Mode Selected Closed = SYNT2 Mode Selected	1 0	0 1		NO	NO	NO		
O 1	OUT 1	SPARE					NO	NO	NO		
O 2	OUT 2	SPARE					NO	NO	NO		
O 15	OUT 15	SPARE					NO	NO	NO		
I 16	IN 0	SYNT1_STATUS	Light = Synt1 Mode Selected Unlight = Synt1 Mode Unselected	0 1	1 0		NO	NO	NO		
I 17	IN 1	SYNT2_STATUS	Light = Synt2 Mode Selected Unlight = Synt2 ModeUnselected	0 1	1 0		NO	NO	NO		
I 18	IN 2	OL2_UNLOCK	Light = OL2 Unlocked Unlight = OL2 Locked	0 1	1 0			NO	NO		
I 31	IN 15	SPARE					NO	NO	NO		
DEWAR CRYO TEMPERATURE SENSORS											
AD 8	AD 8	TEMP_CRYO_1	T [K] (Firmware Converted)				?? 20K ?? +100% (LNA L1)	65K +40% (Dito)	?		
AD 9	AD 9	TEMP_CRYO_2	T [K] (Firmware Converted)				?? 70K ?? +30% (Piastra)	100K +30% (Finestra)	?		
AD 11	AD 11	TEMP_CRYO_3	T [K] (Firmware Converted)				?? 20K ?? +80% (Forca)	20K +100% (LNA)	?		
AD 12	AD 12	TEMP_CRYO_4	T [K] (Firmware Converted)				?? 70K ?? +40% (Dito)	35K +80% (Finestra)	?		
VACUUM SENSOR											
O 4	OUT 4	VCM_SENSOR_ON/OFF	Opened = Sensor OFF Closed = Sensor ON	1 0	0 1						
AD 10	AD 10	VCM_SENSOR	P [mB] (Firmware Converted)				$5x10^{-7}$ mB +20000%	$5x10^{-7}$ mB +20000%	$5x10^{-7}$ mB +20000%		

POWER BOX

I 26	IN 10	REMOTE/LOCAL	Light = Remote Unlight = Local	0 1	1 0					
O 7	OUT 7	VCMVALVE_EN (priority)	Opened = Valve modality DISABLED Closed = Valve OPENS AT START PUMP To be setted before Pump ON if dewar is NOT EMPTY	1 0	0 1					
O 10	OUT 10	VCMVALVE_EN_DLY (no priority)	Opened = Valve modality DISABLED Closed = Valve OPENS AT PUMP REGIME To be setted before Pump ON if dewar is already EMPTY	1 0	0 1					
O 5	OUT 5	VCMPUMP_ON/OFF	Opened = Pump OFF Closed = Pump ON	1 0	0 1					
O 6	OUT 6	VCMPUMP_SFTSTR	Opened = Pump Soft Start DISABLED Closed = Pump Soft Start ENABLED NOT USED NOW (ONLY FOR VARIAN PUMP)	1 0	0 1		NO	NO	NO		
I 21	IN 5	VCMPUMP_STATUS	Light = Pump ON and NORMAL Unlight = Pump OFF or RAMP	0 1	1 0					
I 22	IN 6	VCMPUMP_FAULT (optional status)	Light = Pump FAULT Unlight = Pump OK	0 1	1 0					
I 23	IN 7	VCMVALVE_STATUS	Light (AC) = Valve OPEN Unlight (AC) = Valve CLOSED	0 1	1 0					
O 8	OUT 8	CLHEAD_ON/OFF	Opened = Head OFF Closed = Head ON	1 0	0 1					
I 24	IN 8	CLHEAD_STATUS	Light (AC) = Head ON Unlight (AC) = Head OFF	0 1	1 0					
O 9	OUT 9	RESIST_START	Opened = OFF Transition Opened-Closed = Start Heating Cycle (Timed) NOT USED NOW	1 1=>0=>1	0 0=>1=>0		NO	NO	NO		
I 25	IN 9	RESIST_STATUS	Light (AC) = Heating Cycle (Timed) Unlight (AC) = OFF NOT USED NOW	0 1	1 0		NO	NO	NO		

MARK NOISE GENERATOR

O 11	OUT 11	MGEN_ON/OFF	Opened = Mark OFF Closed = Mark ON	1 0	0 1					
O 12	OUT 12	MGEN_EXT_EN	Opened = External Synchronous Command Disabled Closed = External Synchronous Command Enabled	1 0	0 1					

SINGLE DISH / VLBI MODE

O 13	OUT 13	SD_SEL (/VLBI_SEL)	Opened = Single Dish Mode Closed = VLBI Mode	1 0	0 1			NO	NO		
O 14	OUT 14	VLBI_SEL (/SD_SEL)	Opened = VLBI Mode Closed = Single Dish Mode	1 0	0 1			NO	NO		
I 29	IN 13	SD_SEL_STATUS	Light = Single Dish Mode Unlight = No Single Dish Mode	0 1	1 0			NO	NO		
I 30	IN 14	VLBI_SEL_STATUS	Light = VLBI Mode Unlight = No VLBI Mode	0 1	1 0			NO	NO		

AUX TEMPERATURE SENSOR

AD 13	AD 13	TEMP 1	T [C] (Firmware Converted)				45°C +20/-70% (OL2)	NO	NO		
AD 14	AD 14	TEMP 2	T [C] (Firmware Converted)				25°C +20% (Envirom.)	25°C (Envirom.)	??45°C (Envirom.)		
AD 15	AD 15	TEMP 3	T [C] (Firmware Converted)				NO	NO	NO		

LOCAL CONTROLS (THEY ARE THE SAME FOR ALL RECEIVERS)

POWER BOARD PANEL

SW 1	VP Vacuum Pump command Switch 1-0-2	Command: 1 = Pump ON Soft Start (ONLY FOR VARIAN PUMP) 0 = Pump OFF 2 = Pump ON Status: ON Green LED Lights = Pump On NRM Yellow LED Lights = Pump Regime FAIL Red LED Lights = Pump Fail
SW 2	VV Vacuum Valve command Switch 1-0-2	Command: 1 = Valve Opens at Sart Pump 0 = Valve Always Closed 2 = Valve Opens at Pump Regime Status OPEN Green LED Lights = Vacuum Valve Opened VENT Green LED Lights = Vent Valve Opened (timed)
SW 3	CH Cold Head command Switch 1-2	Command: 1 = OFF 2 = ON Status: ON Green Lights = Cold Head On
SW 4	HR Heat Resistors command (Cycle Enable) Switch 1-2	Command: 1 = OFF 2 = Enable Starting Cycles Status: EN Green LED Lights = Starting Cycles Enable HEAT Green LED Light = Resistors Heating
SW 5	HR Heat Resistors command (Cycle Starting) Pushbutton	Command: Released = OFF Push and Release = Start Cycle (timed)
SW 6	LOC REM LOCal REMote command Switch 1-2	Command: 1 = Local Commands Enabled 2 = Remote Commands Enabled Status: LOC Green LED Lights = Remote REM Green LED Lights = Remote