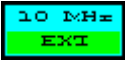
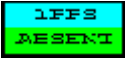
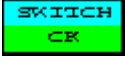
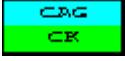
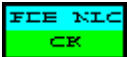


MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
 	Shows the double column of the relevant exciter. (*) Indicates which exciter is selected and which is on-air, as well as the status (fault-free or faulty) of both exciters (1).	EXCITER A / EXCITER B Message is displayed on green background: Exciter selected Message is displayed on yellow background: Exciter non selected
	Indicates the overall status of the COFDM modulator.	MODULAT OK / MODULAT FAULT (1)
	Indicates the overall status of the TS card.	TS OK / TS FAULT / TS MISSING (1)
	Indicates the overall status of the TX card.	TX OK / TX FAULT / TX MISSING (1)
	Indicates the overall status of the preamplifier.	PREAMP OK / PREAMP FAULT (1)
	Indicates the overall status of the RF synthesiser.	SYNTHE OK / SYNTHE FAULT (1)
	Indicates the status of the 10 MHz drive oscillator.	10 MHz EXT / 10 MHz INT <u>First case:</u> "10 MHz INT" control keys in "INSTALLATION PARAMETERS Level 1" window is selected. ♦ A status message (10 MHz ext or 10 MHz INT) is displayed in normal video (on black background). <u>Second case:</u> "10 MHz EXT" control keys in "INSTALLATION PARAMETERS Level 1" window is selected. ♦ A status message (10 MHz EXT) is displayed in normal video (on black background). ♦ A fault message (10 MHz INT) is displayed in reverse video (on white background).
	Indicates the overall status of the GPS receiver card.	GPS OK / GPS FAULT/ GPS MISSING / NOT VISIBLE (1) The "GPS" key in "EXCITER" window is not available (not visible) when the optional card is not present.
	Indicates the presence or absent of the 1PPS.	1PPS ABSENT / 1PPS PRESENT ♦ Operation mode used: "INTERNAL GPS" The signal status is delivered from internal GPS card. ♦ Operation mode used: "EXTERNAL GPS" The signal status is coming from 1PPS input signal.
	Indicates the overall status of the SWITCH ALE card.	SWITCH OK / SWITCH FAULT (1)
	Indicates the status of the AGC loop	AGC OK / AGC FAULT (1) FAULT: The AGC voltage is out of the operation range: +- 2dB (0,5 to 2,5V) regarding AGC reference. It's displays in "AGC SETTING" screen.

Information contained in this document is confidential, is THOMSON property and cannot be disclosed in whatever form without prior written authorization of THOMSON.

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
	Indicates the level of the feedback signal for Linear Correction (Ripple)	FdB LC OK / FdB LC FAULT (1) FAULT: The RF feedback level is out of the operation range: FLO or COFDM modulator used: typical -10dBm to 0dBm 8VSB modulator used: typical -15dBm to +2dBm
	Indicates the level of the feedback signal for No Linear Correction (Shoulder)	FdB NLC OK / FdB NLC FAULT (1) FAULT: The RF feedback level is out of the operation range: FLO or COFDM modulator used: typical -10dBm to 0dBm 8VSB modulator used: typical -15dBm to +2dBm

- (1) A fault free status is displayed in normal video (on black background or on green background in case of colour tactile screen). A faulty status is displayed in reverse video (on white background or on red background in case of colour tactile screen).

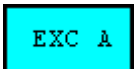
2.1.30. "FLO 1 MODULATOR" window

This window is called up by pressing the "MODUL" control keys in the "EXCITER PANEL" window (SD transmitters) or in the "EXCITER Level 2" window (DD transmitters).

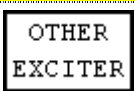
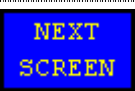
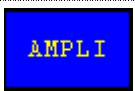
It displays the MediaFLO modulator card parameters used in the exciter.

FLO MODULATOR			
GENERAL	INPUT	TIMING μs	EXC A
Tx ID 12345	WA PID 1234	Tx ID 1234	OTHER
	LA PID 1234	Ntw ID 12345	EXCITER
DATA SRC	CLK SRC	Mod ID 123456	NEXT
DATA PRBS	GPS External	SFN ID 12345678	SCREEN
			STATUS
CONTROL	EXCITER	AMPLI	INTLOCK
			PSUPPLY

MESSAGES	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
FLO MODULATOR	Gives the name windows	
GENERAL Tx ID 12345	Displays the transmitter ID number actual in an SFN network.	This value allows addressing the content of the MIP to this identified Tx.
DATA SRC DATA PRBS	Displays the actual input signal type of the modulator	ASI / PRBS
DATA SRC DATA PRBS	Displays the actual clock type of the exciter.	CLOCK Internal / GPS Internal / GPS External
INPUT WA PID 1234 LA PID 1234	Displays the actual process PID number.	♦ WA PID : This value is programmed Wide Area content process identification (PID). If the wide area PID value in the incoming transport stream matches this value, the stream is forwarded to the channelizer as wide area content. Otherwise, the stream is ignored. ♦ LA PID : This value is programmed Local Area content process identification (PID). If the local area PID value in the incoming transport stream matches this value, the stream is forwarded to the channelizer as local area content. Otherwise, the stream is ignored.

MESSAGES	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
	Displays the actual delay value.	♦ Mod Dly : The number of clock cycles corresponding to the delay through the FLO modulator core. This is set to align the start of superframe at the RF output to the GPS 1PPS. ♦ TX Dly : This value is the latency associated with the transmit hardware. It's used to compensate for the transmit delay in order to synchronize transmissions from multiple sites in an SFN network. ♦ Ntw Dly: This value is the latency associated with the geographic separation of transmitters. It's used to synchronize transmissions from multiple sites in an SFN network. ♦ SFN lim: If the absolute value of the system clock integrity count is greater than this limit, it is out of range and an alarm generated. Pressing this key calls up the "NUMERICAL VALUE" window in which this value can be changed.
	Indicates which exciter data are displayed (*)	EXC A / EXC B

(*) : Only Dual Drive version

CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
	Calls up data from the other exciter (*).	
	Calls up the "FLO 2 MODULATOR" window.	
	Calls up the "STATUS" window.	
	Calls up the "CONTROL LEVEL 1" window.	
	Calls up the "EXCITER Level 1" window.	
	Calls up the "AMPLIFIERS" window.	
	Calls up the «INTERLOCK» window	

CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
	Calls up the "POWER SUPPLY" window.	

(*): Only Dual Drive version

2.1.31. "FLO 2 MODULATOR" window

This window is called up by pressing the "NEXT SCREEN" control keys in the "MODULATOR FLO 1" window.

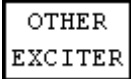
It displays the MediaFLO modulator card parameters used in the exciter.

FLO MODULATOR				
MODULATION		CHANNELIZER		EXC A
Infra ID		Nat Len	Loc Len	OTHER
12345		1234	1234	EXCITER
LT Offset		PP Len	Fr1 Len	NEXT
123456		1234	1234	SCREEN
Daylight		WID Val	LID Val	STATUS
OFF		12	12	
CONTROL	EXCITER	AMPLI	INTLOCK	PSUPPLY

MESSAGES	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
FLO MODULATOR	Gives the name windows	
MODULATION Infra ID 12345 LT Offset 123456 Daylight OFF	Displays actual values of the modulation parameters.	♦ Infra ID: This value is inserted into the infrastructure ID field of the Local system parameters message. The network sets this field to the identifier assigned to the local area infrastructure. ♦ LT Offset: This value is inserted into the local time offset field of the local system parameters message. ♦ Daylight: ON / OFF This indicator is inserted into the daylight field of the local system parameters message. ON: Local transmitter time is daylight saving time.
CHANNELIZER Nat Len 1234 Loc Len 1234 PP Len 1234 Fr1 Len 1234 WID Val 12 LID Val 12	Displays actual values of the channelizer parameters.	♦ Nat Len: Exciter initialization register indicates National Length. ♦ Loc Len: Exciter initialization register indicates Local Length. ♦ PP Len: Exciter initialization register indicates Positioning Pilot Length. ♦ Fr1 Len: Exciter initialization register indicates FrameLength. ♦ WID Val: Exciter initialization register indicates WID scrambler sequence number. ♦ LID Val: Exciter initialization register indicates LID scrambler sequence number.

MESSAGES	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
	Indicates which exciter data are displayed (*)	EXC A / EXC B

(*) : Only Dual Drive version

CONTROL KEYS	FUNCTIONS	SELECTIONS AVAILABLE/COMMENTS
	Calls up data from the other exciter (*).	
	Calls up the "FLO 1 MODULATOR" window.	
	Calls up the "STATUS" window.	
	Calls up the "CONTROL LEVEL 1" window.	
	Calls up the "EXCITER Level 1" window.	
	Calls up the "AMPLIFIERS" window.	
	Calls up the «INTERLOCK» window	
	Calls up the "POWER SUPPLY" window.	

(*) : Only Dual Drive version

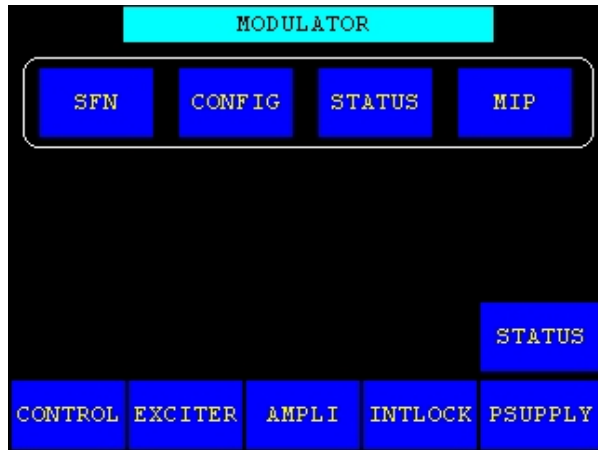
Information contained in this document is confidential, is THOMSON property and cannot be disclosed in whatever form without prior written authorization of THOMSON.

2.1.32. "COFDM MODULATOR" window

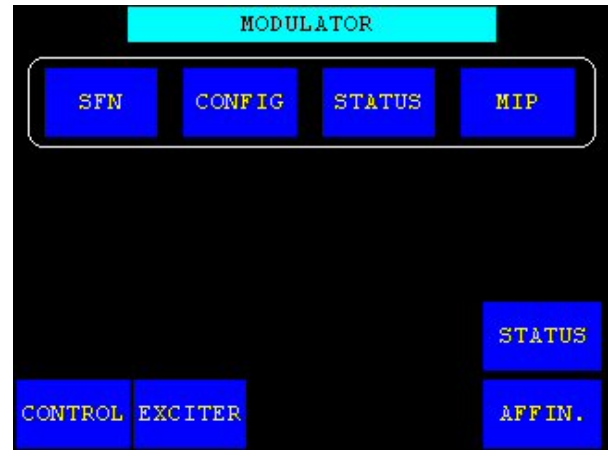
This window is called up by pressing the "MODUL" control keys in the "EXCITER PANEL" window (SD transmitters) or in the "EXCITER Level 2" window (DD transmitters).

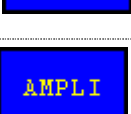
It displays the status of the modulator parameters of the exciter. This window is not available in 8VSB modulator unit (ATSC Transmitters).

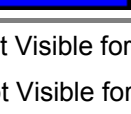
OPTIMUM FAMILY OR ULTIMATE FAMILY



AFFINTY FAMILY

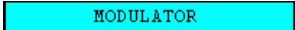


CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Calls up the "SFN DELAYS" window.	Control key invisible in MFN mode operation.
	Calls up the "MODULATOR CONFIGURATION" window.	
	Calls up the "MODULATOR STATUS" window.	
	Calls up the "MIP DATA" window.	Control key invisible in MFN mode operation.
	Calls up the "TRANSMITTER STATUS" window.	
	Calls up the "CONTROL Level 1" window.	
	Calls up the "EXCITER Level 2" window (for a Double Drive transmitter) or the "EXCITER PANEL" window (for a Single Drive transmitter).	
	Calls up the "AMPLIFIERS" window. (a)	

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Calls up the "SFN DELAYS" window.	Control key invisible in MFN mode operation.
	Calls up the "MODULATOR CONFIGURATION" window.	
	Calls up the "MODULATOR STATUS" window.	
	Calls up the "MIP DATA" window.	Control key invisible in MFN mode operation.
	Calls up the «INTERLOCK» window (a)	
	Calls up the "POWER SUPPLY" window. (a)	
	Calls up the "AFFINITY" window. (b)	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	

2.1.33. "ADAPT PARAMETERS" window

This window is called up by pressing the "ADAPT" control keys in the "EXCITER PANEL" window (SD transmitters) or in the "EXCITER Level 2" window (DD transmitters).

It displays the status of the ADAPTive parameters of exciter A or B.

MODAP VERSION

OPTIMUM FAMILY OR ULTIMATE FAMILY

ADAPT STATUS			
LIN. CCP	LIN. CCP		EXC A
N.FITTED	FIXED		
N.LIN CCP	N.LIN CCP		OTHER EXCITER
CN LINE	FIXED		
EIG. FILT	EIG. FILT		
N.FITTED	1		
EASI	CLEC	CCFIM	
N.FITTED	N.FITTED	1234567890	
			STATUS
CONTROL	EXCITER	AMPLI	INTLOCK
PSUPPLY			

AFFINTY FAMILY

MODAP STATUS			
LIN. CCP	LIN. CCP		EXC A
N.FITTED	FIXED		
N.LIN CCP	N.LIN CCP		OTHER EXCITER
CN LINE	FIXED		
EIG. FILT	EIG. FILT		
N.FITTED	1		
EASI	CLEC	CCFIM	
N.FITTED	N.FITTED	1234567890	
			STATUS
CONTROL	EXCITER		AFFIN.

SIRIUS VERSION

OPTIMUM FAMILY OR ULTIMATE FAMILY

ADAPT STATUS			
LIN. CCP	LIN. CCP		EXC A
N.FITTED	FIXED		
N.LIN CCP	N.LIN CCP		OTHER EXCITER
CN LINE	FIXED		
EIG. FILT	EIG. FILT		
N.FITTED	1		
EASI		CCFIM	
N.FITTED		1234567890	
			STATUS
CONTROL	EXCITER	AMPLI	INTLOCK
PSUPPLY			

ADAPT STATUS			
LIN. CCP	LIN. CCP		EXC A
N.FITTED	FIXED		
N.LIN CCP	N.LIN CCP		OTHER EXCITER
CN LINE	FIXED		
EIG. FILT	EIG. FILT		
N.FITTED	1		
EASI		MediaFIC	
N.FITTED			
			STATUS
CONTROL	EXCITER	AMPLI	INTLOCK
PSUPPLY			

OTHER MODULATOR

MEDIAFLO MODULATOR

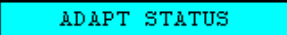
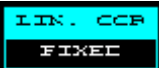
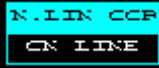
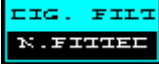
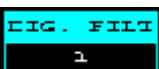
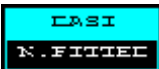
CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER	Calls up data from the other exciter. (*)	
STATUS	Calls up the "TRANSMITTER STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	

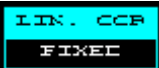
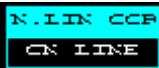
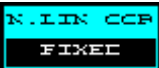
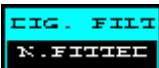
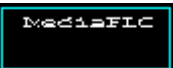
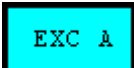
CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Calls up the "EXCITER Level 1" window or the "EXCITER PANEL" window.	
	Calls up the "AMPLIFIERS" window. (a)	
	Calls up the «INTERLOCK» window (a)	
	Calls up the "POWER SUPPLY" window. (a)	
	Calls up the "AFFINITY" window. (b)	

(*) Only in Double Drive Version.

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

MESSAGES	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	
	Indicates the status of the linearity correction (Adaptive Linear Equaliser).	♦ MODAP version LIN. COR N. FITTED / LIN. COR ON LINE / LIN. COR BYPASSED ♦ SIRIUS version LIN. COR ON LINE / LIN. COR BYPASSED
	Displays the type of linearity correction performed by the ALE card of the EXCITER (fixed or adaptive).	LIN. COR FIXED / LIN. COR ADAPTATIVE In fixed position, the correction parameters are not continuously adjusted.
	Indicates the status, ON LINE or BYPASSED, of the non linearity correction (Look Up Table).	N. LIN COR ON LINE / N. LIN COR BYPASSED
	Displays the type of non linearity correction performed by the LUT module of the EXCITER (fixed or adaptive).	N. LIN. COR FIXED / N. LIN. COR ADAPTATIVE In fixed position, the correction parameters are not continuously adjusted.
	Indicates the status of the digital filter correction.	♦ MODAP version DIG. FILT NOT FITTED / DIG. FILT ON LINE / DIG. FILT BYPASSED ♦ SIRIUS version DIG. FILT ON LINE / DIG. FILT BYPASSED
	Displays the reference table of the digital filter (1 to 5).	
	Displays whether a Double ASI input is present or absent in the EXCITER unit.	DASI FITTED / DASI N. FITTED

MESSAGES	FUNCTIONS	DISPLAY/COMMENTS
ADAPT STATUS	Gives the window name.	
	Indicates the status of the linearity correction (Adaptive Linear Equaliser).	♦ MODAP version LIN. COR N. FITTED / LIN. COR ON LINE / LIN. COR BYPASSED ♦ SIRIUS version LIN. COR ON LINE / LIN. COR BYPASSED
	Displays the type of linearity correction performed by the ALE card of the EXCITER (fixed or adaptive).	LIN. COR FIXED / LIN. COR ADAPTATIVE In fixed position, the correction parameters are not continuously adjusted.
	Indicates the status, ON LINE or BYPASSED, of the non linearity correction (Look Up Table).	N. LIN COR ON LINE / N. LIN COR BYPASSED
	Displays the type of non linearity correction performed by the LUT module of the EXCITER (fixed or adaptive).	N. LIN. COR FIXED / N. LIN. COR ADAPTATIVE In fixed position, the correction parameters are not continuously adjusted.
	Indicates the status of the digital filter correction.	♦ MODAP version DIG. FILT NOT FITTED / DIG. FILT ON LINE / DIG. FILT BYPASSED ♦ SIRIUS version DIG. FILT ON LINE / DIG. FILT BYPASSED
	Displays whether an OLDC unit is present or absent in the MODAP unit.	OLDC FITTED / OLDC N. FITTED Note: The “ OLDC ” key in “ADAPT STATUS” window is not available (not visible) when the EXCITER type is SIRIUS.
 	Displays which type of modulator processes the input signal.	IFIQ BOARD / COFDM EXT 8MHz / COFDM EXT 7MHz / COFDM BOARD 8MHz / COFDM BOARD 7MHz / COFDM BOARD 6MHz / 8VSB BOARD / MediaFLO
	Indicates which exciter data are displayed.(*)	EXC A / EXC B

(*) Only in Double Drive Version.

(1) Only in MODAP version with OLDC

Information contained in this document is confidential, is THOMSON property and cannot be disclosed in whatever form without prior written authorization of THOMSON.

2.1.34. "DASI STATUS" window

This window is called up by pressing the "DASI" control keys in the "EXCITER PANEL" window (SD transmitters) or in the "EXCITER Level 2" window (DD transmitters).

It displays the status of the double ASI input parameters of Exciter A or B.

MODAP VERSION

OPTIMUM FAMILY OR ULTIMATE FAMILY

DASI STATUS			
STATUS	DASI		
CK	RUNNING	EXC A	
CURRENT	ERA	OTHER	
TS 2	CN	EXCITER	
		STATUS	
CONTROL	EXCITER	AMPLI	INTLOCK PSUPPLY

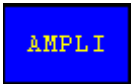
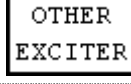
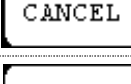
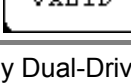
AFFINTY FAMILY

DASI STATUS			
STATUS	DASI		
CK	RUNNING	EXC A	
CURRENT	ERA	OTHER	
TS 2	CN	EXCITER	
		STATUS	
CONTROL	EXCITER	AFFIN.	

SIRIUS VERSION

DASI STATUS					
STATUS	DASI	TS 1	SYNC		
CK	RUNNING	CK	CK	EXC A	
CURRENT		TS 2	SYNC	OTHER	
TS 1		CK	CK	EXCITER	
		TS 3	SYNC		
		CK	CK		
TS 1	CANCEL	TS 4	SYNC		
		CK	CK		
MAIN TS	VALID			STATUS	
CONTROL	EXCITER	AMPLI	INTLOCK	PSUPPLY	

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
STATUS	Calls up the "CONTROL Level 1" window.	
CONTROL	Calls up the "EXCITER Level 2" window (for a Double Drive transmitter) or the "EXCITER PANEL" window (for a Single Drive transmitter).	
EXCITER	Calls up the "AMPLIFIERS" window.	

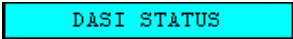
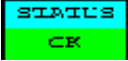
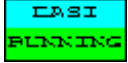
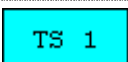
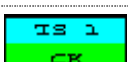
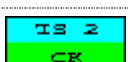
CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Calls up the "AMPLIFIERS" window. (a)	
	Calls up the «INTERLOCK» window (a)	
	Calls up the "POWER SUPPLY" window. (a)	
	Calls up the "AFFINITY" window. (b)	
	Calls up data from the other exciter. (*)	
	Selects the Transport Stream to be connected to the SIRIUS Exciter. (1)	
	Cancels a selection. (1)	
	Validates a selection. (1)	

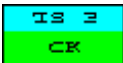
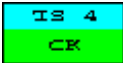
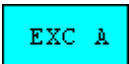
(*) : Only Dual-Drive version.

(1) : Only SIRIUS version.

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	
	Indicates the status of the Dual ASI input.	 /  / 
	Indicates the overall status of the Dual ASI input.	 / 
	Indicates which ASI input is operating.	TS 1 / TS 2
	Indicates if DASI function is operating. (**)	<u>BRA ON</u> : the BRA function is operating, the actual mode of the network is MFN <u>SFN OFF</u> : If the transmitter is on SFN mode, the BRA function is ineffective
	Indicates the Transport Stream selected.	TS 1 / TS 2 Flashes until the "MAIN TS" command is either validated or cleared.
	Indicates presence or absence of an MPEG1 input signal on the exciter. (1)	TS 1 OK / TS 1 MISSING
	Indicates presence or absence of an MPEG2 input signal on the exciter. (1)	TS 2 OK / TS 2 MISSING

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Indicates presence or absence of an MPEG3 input signal on the exciter. (1) (2)	TS 3 OK / TS 3 MISSING This key in "DASI STATUS" window is not available (not visible) when the optional card (Extension Input) is not present.
	Indicates presence or absence of an MPEG4 input signal on the exciter. (1) (2)	TS 4 OK / TS 4 MISSING This key in "DASI STATUS" window is not available (not visible) when the optional card (Extension Input) is not present.
	Indicates presence or absence of an synchronization of MPEG input signal on the exciter. (1) (3)	SYNC OK / SYNC MISSING SYNC OK: The MPEG is synchronized or there is a loss of one frame. SYNC MISSING If a loss of frame condition persists for 2 consecutive frames, the synchronization status is declared MISSING. If 7 occurrences of the transport stream framing byte is detected in the proper place the status is declared OK
	Indicates which exciter data are displayed. (*)	EXC A / EXC B

(*) : Dual-Drive version Only.

()** : MODAP version Only.

(1) : SIRIUS version Only.

(2) : Unavailable with MediaFLO modulator.

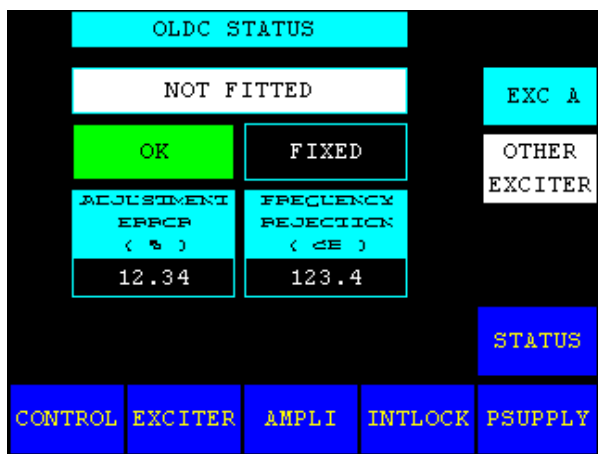
(3) : MediaFLO modulator only.

2.1.35. "OLDC STATUS" window, MODAP version ONLY

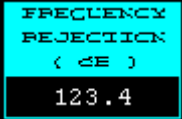
This window is called up by pressing the "OLDC" control keys in the "EXCITER PANEL" window (SD transmitters) or in the "EXCITER Level 2" window (DD transmitters).

NOTE : This window is available in MODAP version only

It displays the status of the OLDC parameters of Exciter A or B.

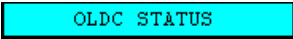
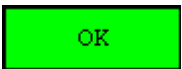
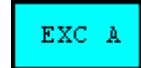
OPTIMUM FAMILY OR ULTIMATE FAMILY**AFFINTY FAMILY**

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
CONTROL	Calls up the "CONTROL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 2" window (for a Double Drive transmitter) or the "EXCITER PANEL" window (for a Single Drive transmitter).	
AMPLI	Calls up the "AMPLIFIERS" window. (a)	
INTLOCK	Calls up the «INTERLOCK» window (a)	
PSUPPLY	Calls up the "POWER SUPPLY" window. (a)	
AFFIN.	Calls up the "AFFINITY" window. (b)	
STATUS	Calls up the "TRANSMITTER STATUS" window.	
OTHER EXCITER	Calls up data from the other exciter. (*)	
ADJUSTMENT ERROR < % > 12.34	Displays the measured I/Q amplitude error value.	Available in Adaptive mode only.

	Displays the measured central frequency rejection value.	Available in Adaptive mode only.
---	--	----------------------------------

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	
	Displays whether an OLDC card is present or absent.	FITTED / NOT FITTED
	Indicates the status of the OLDC card.	OK / FAULT / MISSING
	Displays the current operating mode of the OLDC card.	ADAPTATIVE / FIXED
 (*)	Indicates which exciter data are displayed.	EXC A / EXC B

(*) : Only Dual-Drive version.

2.1.36. "SETTINGS" window, SIRIUS version ONLY

This window is called up by pressing the "SETTING" control keys in the "EXCITER PANEL" window (SD transmitters) or in the "EXCITER Level 2" window (DD transmitters).

NOTE: This window is available in SIRIUS version only.

This window is available in Maintenance mode only.

OPTIMUM FAMILY OR ULTIMATE FAMILY

SETTINGS				
RESERVE ADAPT.	PREAMP	AGC	REJECT	PLL 10 MHz
LIN COR CALIB.				
				STATUS
CONTROL	EXCITER	AMPLI	INTLOCK	PSUPPLY

AFFINTY FAMILY

SETTINGS				
RESERVE ADAPT.	PREAMP	AGC	REJECT	PLL 10 MHz
LIN COR CALIB.				
				STATUS
CONTROL	EXCITER			AFFIN.

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
RESERVE ADAPT.	Calls up the " RESERVE ADAPTATIVITY SETTING" window.	Control key invisible in Dual Drive configuration.
PREAMP	Calls up the "PREAMPLI SETTING" window.	
AGC	Calls up the "AGC SETTING" window.	
REJECT	Calls up the "LOCAL / IMAGE REJECT" window.	
PLL 10 MHz	Calls up the "ADJUSTMENT 10Mhz" window.	
LIN COR CALIB.	Calls up the "LINear CORrection CALIBration" window.	
STATUS	Calls up the "TRANSMITTER STATUS" window.	
CONTROL	Calls up the "CONTROL Level 1" window.	
EXCITER	Calls up the "EXCITER Level 2" window (for a Double Drive transmitter) or the "EXCITER PANEL" window (for a Single Drive transmitter).	

Information contained in this document is confidential, is THOMSON property and cannot be disclosed in whatever form without prior written authorization of THOMSON.

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Calls up the "AMPLIFIERS" window. (a)	
	Calls up the «INTERLOCK» window. (a)	
	Calls up the "POWER SUPPLY" window. (a)	
	Calls up the "AFFINITY" window. (b)	

(a): Not Visible for AFFINITY family

(b): Not Visible for OPTIMUM or ULTIMATE families

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	

2.1.37. "RESERVE ADAPTATIVITY SETTINGS" window, SIRIUS version ONLY

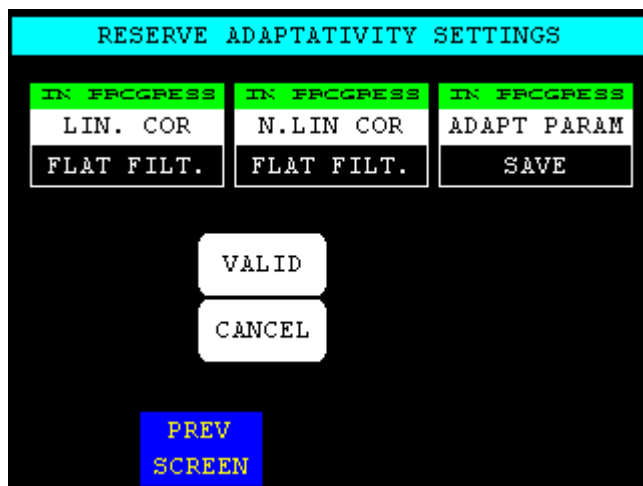
This window is called up by pressing the "ADAPT RESERVE" control keys in the "SETTINGS" window.

NOTE : This window is available in SIRIUS version only

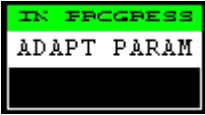
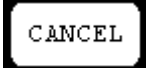
This window is only available in Maintenance mode and in Dual Drive configuration transmitter

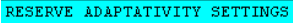
The window allows to configure the state of the not linear corrections and to display that current for the reserve exciter.

OPTIMUM FAMILY OR ULTIMATE FAMILY



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Controls the loading of the linear correction with flat filter coefficients.	 Press this key and validation allows verifying the good operating WITHOUT correction. Note: To feedback to old coefficients used the function RECALL of the control key "ADAPT PARAM"
	Controls the loading of the no linear correction with flat filter coefficients.	 Press this key and validation allows verifying the good operating WITHOUT correction. Note: To feedback to old coefficients used the function RECALL of the control key "ADAPT PARAM"

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Selects the coefficients of the corrections for reserve exciter	Press this control key and validation: ◆ SAVE : Allows saving coefficients into tables of corrections. ◆ RECALL: Allows verifying the good operating WITH corrections by using coefficients beforehand recorded during the equipment line-up procedure: Recalls the coefficients of the last save.
	Validates a selection.	
	Cancels a selection.	
	Calls up the "SETTINGS" window.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Give the window name.	

Information contained in this document is confidential, is THOMSON property and cannot be disclosed in whatever form without prior written authorization of THOMSON.

2.1.38. "PREAMPLI SETTING" window, SIRIUS version ONLY

This window is called up by pressing the "PREAMP" control keys in the "SETTINGS" window.

NOTE : This window is available in SIRIUS version only

This window is only available in Maintenance mode. It displays the status of RF preamplifier parameters of exciter A or B.

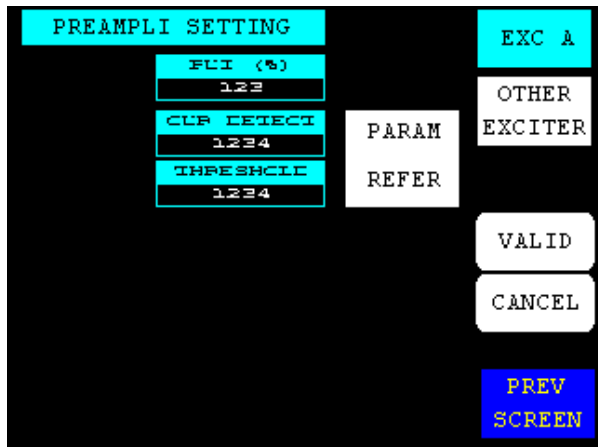


Figure 30 : Exciter on Antenna (D.D.)

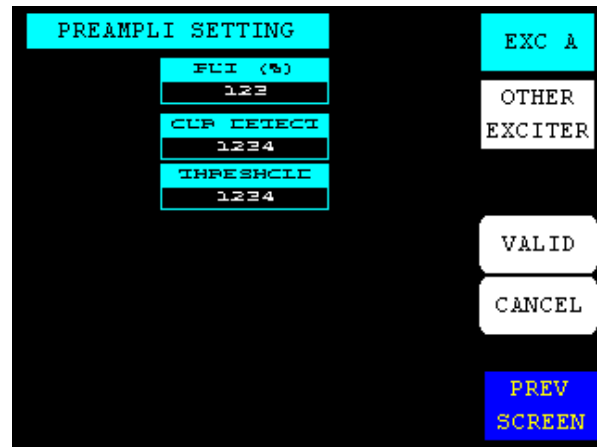
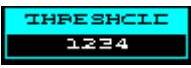
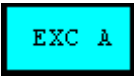


Figure 31 : Exciter on Dummy load (D.D.)

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Validates a selection.	
	Cancels a selection.	
	Set the reference value of the threshold in the RF preamplifier.	Only available for the exciter on antenna Flashes until the "SET REFER" command is either validated or cleared.
	Appelle les données de l'autre EMB (*).	
	Calls up the "SETTINGS" window.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Give the window name.	
	Displays the transmitted RF power value.	This value is expressed in a percentage of calibrated power value.
	Displays the current value of the output preamplifier that is applied to the RF chain of the transmitter.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Displays the fault threshold value of the RF preamplifier.	
	Indicates which exciter data are displayed (*).	EXC A / EXC B

(*): Only Dual Drive version.

2.1.39. "AGC SETTING" window, SIRIUS version ONLY

This window is called up by pressing the "AGC" control keys in the "SETTINGS".

NOTE : This window is available in SIRIUS version only.

This windows is available in Maintenance mode only. It displays the status of the AGC parameters of Exciter A or B.

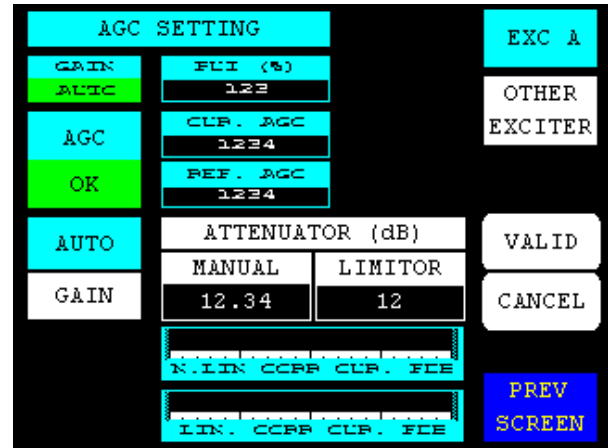
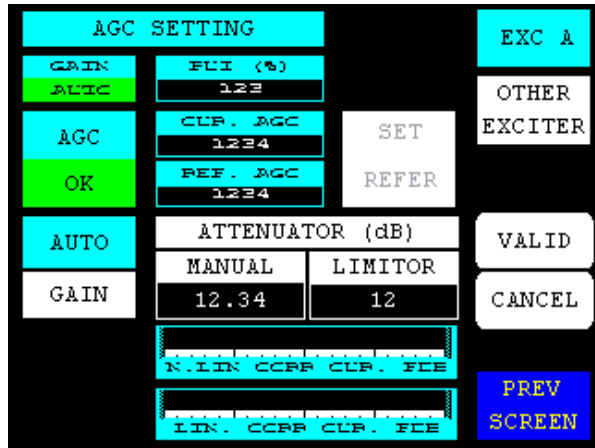


Figure 32 : Exciter on air for Transmitter D.D.

Figure 33 : Exciter on load for Transmitter D.D.

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
GAIN	Selects the GAIN control mode (manual or automatic) for AGC of the transmitter	Command is disabled while the PCL is locked (disabled).
VALID	Validates a selection.	
CANCEL	Cancels a selection.	
PREV SCREEN	Calls up the "SETTING" window.	
SET REFER	Set the reference value in Auto Gain Control (AGC) loop.	Available with on-air exciter only. Flashes until the "SET REFER" command is either validated or cleared.
ATTENUATOR (dB) MANUAL 123.4	Calls up the "NUMERICAL VALUE" window in which the Main Gain Control value (MGC) can be changed Displays the attenuation value	Command is disabled while the PCL is locked (disabled). Warning: This attenuator adjusts the output power in manual gain of the transmitter. It's to be expressed in dB. The maximum attenuation is 25.0
ATTENUATOR (dB) LIMITOR 12	Calls up the "NUMERICAL VALUE" window in which the LIMITOR value can be changed Displays the attenuation value	Command is disabled while the PCL is locked (disabled). Warning: This attenuator limits the RF output of SIRIUS Exciter. It's to be expressed in dB. The maximum attenuation is 25

OTHER EXCITER (*)	Calls up data from the other exciter.	
----------------------------------	---------------------------------------	--

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
AGC SETTING	Gives the window name.	
GAIN AUTO	Displays, which gain control mode (MANUAL or AUTOMATIC) is <u>currently</u> picked up by the transmitter	GAIN MANUAL / GAIN AUTO
AGC OK	Indicates the status of the AGC loop.	AGC OK / AGC FAULT FAULT: The AGC voltage is out of the operation range: +2dB (0,5V to 2,5V) regarding AGC reference. It's displays in "AGC SETTING" screen.
AUTO	Displays which gain control mode is selected	AUTO / MANUAL Flashes until the "GAIN" command is either validated or cleared.
PWR (%) 123	Displays the transmitted RF power value	This value is expressed in a percentage of the calibrated power value.
CLP. AGC 1234	Displays the current value for the Auto Gain Control (AGC) loop that is picked up by the transmitter.	
REF. AGC 1234	Displays the reference value in Auto Gain Control (AGC) that is used.	
LIN. CORR CLP. FLE	Indicates the level of the feedback signal for Linear Correction (Ripple)	Green indication: OK Red indication: FAULT The RF feedback level is out of the range: FLO or COFDM modulator used: typical -10dBm to 0dBm 8VSB modulator used: typical -15dBm to +2dBm
LIN. CORR CLP. FLE	Indicates the level of the feedback signal for Linear Correction (Shoulder)	Green indication: OK Red indication: FAULT The RF feedback level is out of the range: FLO or COFDM modulator used: typical -10dBm to 0dBm 8VSB modulator used: typical -15dBm to +2dBm
EXC A (*)	Indicates which exciter data are displayed.	EXC A / EXC B

(*) : Only Dual-Drive version.

2.1.40. "LOCAL/IMAGE REJECT" window, SIRIUS version ONLY

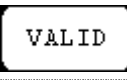
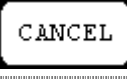
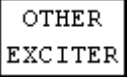
This window is called up by pressing the "REJECT" control keys in the "SETTINGS" window.

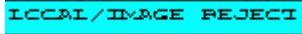
NOTE : This window is available in SIRIUS version only.

This window is only available in maintenance mode.

LOCAL/IMAGE REJECT					EXC A
-10	-1	CFFSET I	+1	+10	OTHER EXCITER
		-1234			
-10	-1	CFFSET C	+1	+10	
		-1234			
-10	-1	GAIN	+1	+10	
		123			
-1	-.01	PHASE (")	+0.01	+1	
		-12.34			
SAVE CANCEL VALID					
PREV SCREEN					

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
-10 -1 CFFSET I -1234 CFFSET I -1234 CFFSET I -1234 +1 +10 -10 -1 CFFSET C -1234 CFFSET C -1234 CFFSET C -1234 +1 +10	Decrements the adjustment value of the "OFFSET I" by step of 1 or by step of 10. Displays the adjustment value of the "OFFSET I" Increments the adjustment value of the "OFFSET I" by step of 1 or by step of 10. Decrements the adjustment value of the "OFFSET Q" by step of 1 or by step of 10. Displays the adjustment value of the "OFFSET Q" Increments the adjustment value of the "OFFSET Q" by step of 1 or by step of 10.	Allows to adjust the I & Q/RF modulator (Local Oscillator Rejection) Obtain the maximum rejection of the local frequency (<35dB). The adjustments are directly applied to the basic transmitter.
-10 -1 GAIN 123 GAIN 123 GAIN 123 +1 +10	Decrements the adjustment value of the GAIN by step of 1 or by step of 10. Displays the adjustment value of the GAIN. Increments the adjustment value of the GAIN by step of 1 or by step of 10.	Allows to adjust the rejection of the unwanted lateral band (image Rejection) The adjustments are directly applied to the basic transmitter.
-1 -.01 PHASE (") -12.34 PHASE (") -12.34	Decrements the adjustment value of the PHASE by step of 1 or by step of 10. Displays the adjustment value of the PHASE.	

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Increments the adjustment value of the PHASE by step of 1 or by step of 10.	
	Allows saving adjustments above in the basic transmitter.	Flashes until the "SAVE" command is either validated or cleared.
	Validates a selection.	
	Cancels a selection.	
	Calls up data from the other exciter. (*)	
	Calls up the "SETTINGS" window.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	
	Indicates which exciter data are displayed. (*).	EXC A / EXC B

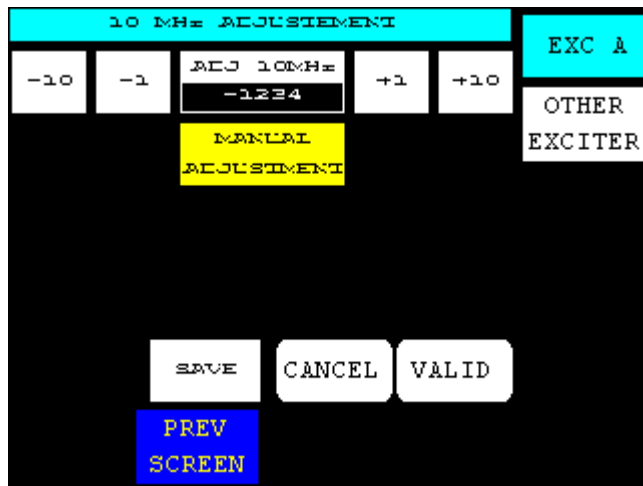
(*) : Only Dual-Drive version.

2.1.41. "10 MHz ADJUSTEMENT" window, SIRIUS version ONLY

This window is called up by pressing the "PLL 10MHz" control keys in the "SETTINGS" window.

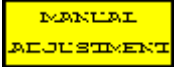
NOTE: This window is available in SIRIUS version only.

This window is only available in Maintenance mode.



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
-10 -1 ADJ 10MHz -1234 ADJ 10MHz -1234 ADJ 10MHz -1234 +1 +10	Decrements the adjustment value of the frequency 10Mhz internal by step of 1 or by step of 10. Displays the adjustment value of the frequency 10Mhz internal. Increments the adjustment value of the frequency 10Mhz internal by step of 1 or by step of 10.	Allows to adjust the frequency 10MHz if the choice " INTERNAL CLOCK " was selected, we have then the message " MANUAL ADJUSTMENT ". The manual adjustment of the frequency is possible whatever the state (present or absent) in signals 1PPS or 10Mhz.
SAVE	Allows saving adjustments above in the basic transmitter.	Flashes until the "SAVE"" command is either validated or cleared.
VALID	Validates a selection.	
CANCEL	Cancels a selection.	
OTHER EXCITER	Calls up data from the other exciter. (*)	
PREV SCREEN	Calls up the "SETTING" window.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
10 MHz ADJUSTEMENT	Gives the window name.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Indicates which exciter data are displayed. (*)	EXC A / EXC B
	Displays the status of 10 Mhz adjustment according to the clock configuration chosen for the exciter ("Modulator configuration" window)	MANUAL ADJUSTMENT / AUTO ADJUSTMENT ♦ MANUAL ADJUSTMENT: The choice of operating " INTERNAL CLOCK " has been selected. ♦ AJUSTEMENT AUTO : The choice of operating " EXTERNAL GPS or EXTERNAL CLOCK " has been selected. So control keys of this window are without action.

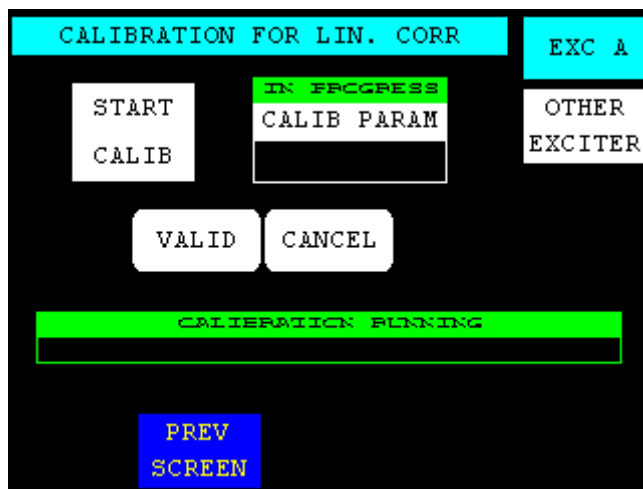
(*) : Only Dual-Drive version.

2.1.42. "LINEAR CORRECTION CALIBRATION" window, SIRIUS version ONLY

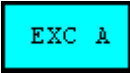
This window is called up by pressing the "LIN COR CALIB." control keys in the "SETTINGS" window.

NOTE : This window is available in SIRIUS version only.

This window is available in Maintenance mode only. It allows calibrating the linear correction feedback of Exciter A or B.



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
START CALIB	Starts the correction of the Linear correction	BE CAREFUL: Achieve assembling electrical circuit before Pressing this control key et validation allows to start the calibration. Duration of the Calibration. 3 to 5 minutes
IN PROGRESS CALIB PARAM	Selects the calibration coefficients of the linear correction	Press this control key and validation: ◆ SAVE: Allows saving actual coefficients into table. ◆ RECALL: Recalls the coefficients of the last save
OTHER EXCITER	Calls up data from the other exciter. (*)	
VALID	Validates a selection.	
CANCEL	Cancels a selection.	
PREV SCREEN	Calls up the "SETTING" window.	

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Gives the window name.	
 (*)	Indicates which exciter data are displayed.	EXC A / EXC B
	Displays the calibration progress.	

(*) : Only Dual-Drive version.

2.1.43. "SFN DELAY" window

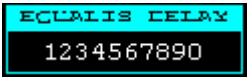
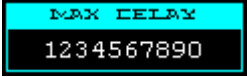
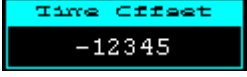
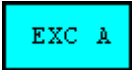
This window is called up by pressing the "SFN" control keys in the "MODULATOR" window.

This windows displays the status of the delays necessary for SFN mode operation of Exciter A or B. This windows is available in SFN mode only. It is not available in 8VSB modulator unit (ATSC Transmitters).

PARAMETER		SFN DELAY		EXC A
SFN	GPS	Step 100 ns		
CFF	CFF			
TX ID.		NETWORK DELAY		OTHER EXCITER
12345		1234567890		
MAX DELAY		EQUALIS DELAY		
1234567890		1234567890		
Time Offset		TX LENGTH		
-12345		1234567890		
PREV SCREEN				

CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER (*)	Calls up data from the other exciter.	
PREV SCREEN	Calls up the "MODULATOR" window.	

MESSAGES	FUNCTIONS	DISPLAY/COMMENTS
PARAMETER	Gives the parameter name.	
SFN CFF	Indicates the SFN status.	SFN ON / OFF
GPS CFF	Indicates the GPS monitoring status.	GPS ON / OFF
TX ID. 12345	Displays the transmitter identification number.	
SFN DELAY Step 100 ns	Gives the parameter name when the transmitter is in SFN mode.	
NETWORK DELAY 1234567890	Displays the NETWORK delay value in SFN mode.	This value can be changed by the MIP.

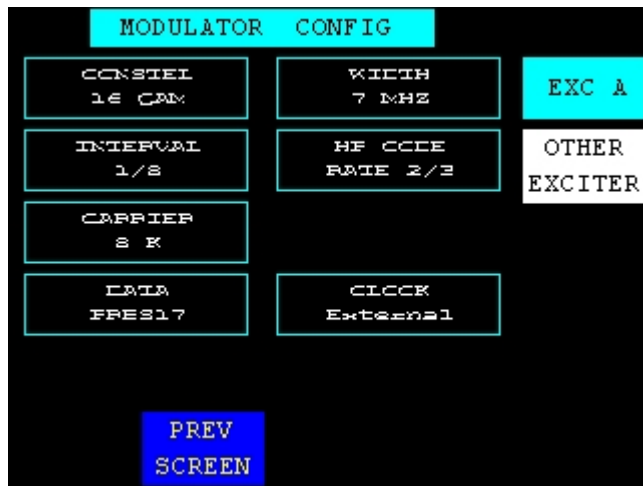
MESSAGES	FUNCTIONS	DISPLAY/COMMENTS
	Displays the EQUALISER delay value.	This value is calculated by the modulator unit. The different delays are related as follows : <i>Delays (MAX ± OFFSET) =</i> <i>Delays (NETWORK + EQUALISER +TRANSMITTER)</i>
	Displays the TRANSMITTER delay value.	
	Displays the MAXIMUM delay value in SFN mode.	This value can be changed by the MIP.
	Displays the offset delay value when the transmitter is in SFN mode.	This value can be changed by the MIP and / or by Local Control Panel window.
	Indicates which exciter data are displayed.	EXC A / EXC B

(*) : Dual-Drive version only.

2.1.44. "MODULATOR CONFIG" window

This window is called up by pressing the "CONFIG" control keys in the "MODULATOR" window.

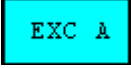
It displays the status of the DVB-T modulator configuration parameters of exciter A or B. This window is available with an internal COFDM modulator only (DVB-T Transmitters).



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER (*)	Calls up data from the other exciter.	
PREV SCREEN	Calls up the "MODULATOR" window.	

(*) : Only Dual-Drive version

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
MODULATOR CONFIG	Gives the window name.	
CONSTEL 16 QAM	Displays the constellation type used by the modulator.	CONSTEL 64-QAM/16-QAM/QPSK 64-QAM : 64-bit representation 16-QAM : 16-bit representation QPSK (4-QAM) : 4-bit representation
WIDTH 7 MHz	Displays the band width.	WIDTH 8 MHz / 7 MHz / 6 MHz
INTERVAL 1/8	Displays the guard interval used by the COFDM modulator.	INTERVAL 1/32; 1/16; 1/8; 1/4
HF CODE RATE 2/3	Displays the High Priority code rate of the modulation.	HP CODE RATE 7/8; 5/6; 3/4; 2/3; 1/2
CARRIER 8 K	Displays the number of transmitted carriers.	CARRIER 8K / 2K
DATA PRBS17	Displays the input configuration of the modulator.	Data PRBS 15, Data PRBS 17, Data PRBS 20, Data PRBS 23, Data input ASI, Data DVB_SPI

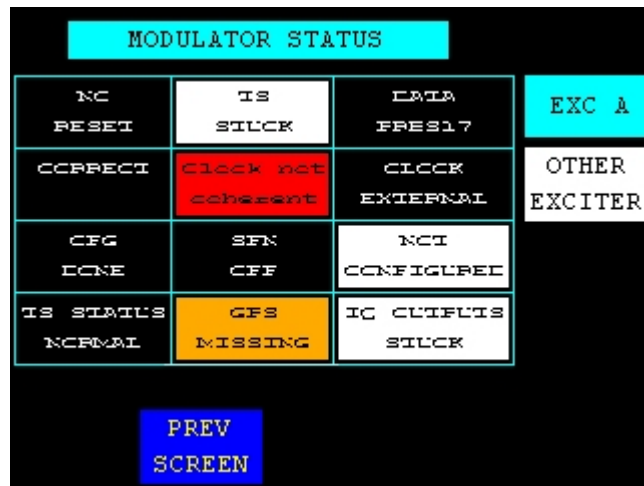
INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Displays the configuration of the MODAP clock.	CLOCK internal, CLOCK external, CLOCK data derived
 (*)	Indicates which exciter data are displayed.	EXC A / EXC B

(*) : Only Dual-Drive version

2.1.45. "MODULATOR STATUS" window

This window is called up by pressing the "STATUS" control keys in the "MODULATOR" window.

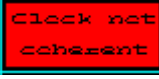
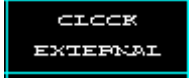
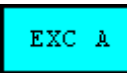
It displays the status of the DVB-T modulator configuration parameters of exciter A or B. This window is only available with an internal COFDM modulator (DVB-T Transmitters).



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER (*)	Calls up data from the other exciter.	
PREV SCREEN	Calls up the "MODULATOR" window.	

(*): Only Dual-Drive version

INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
MODULATOR STATUS	Gives the window name.	
NC RESET	Displays the Reset status of the modulator.	"No Reset" is displayed when: - the internal COFDM modulator has not been affected by a mains failure. - the internal COFDM modulator has not been affected by a reset which was not commanded by the DAP unit. "Reset Done" is displayed when: - the internal COFDM modulator has been affected by a reset which was not commanded by the DAP unit. - the COFDM power supply is shut down, but the DAP power supply is present.
TS STUCK	Displays the input interface status of the modulator.	TS (interface) toggling / TS (interface) stuck

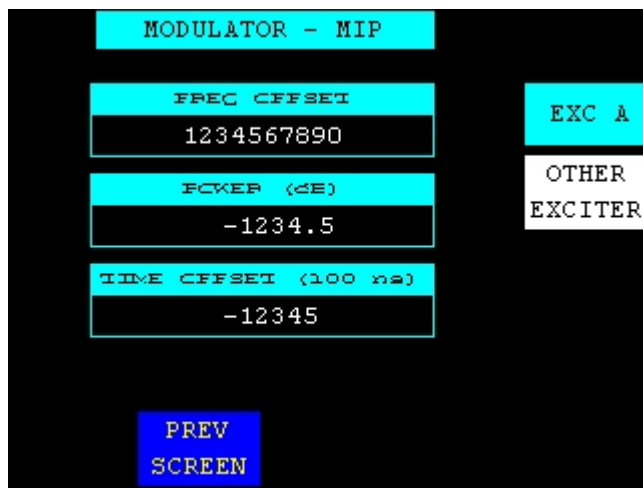
INDICATOR LAMPS AND MESSAGE DISPLAYS	FUNCTIONS	DISPLAY/COMMENTS
	Displays the input signal of the modulator.	Data PRBS 15 / Data PRBS 17 / Data PRBS 20 / Data PRBS 23 / Data input ASI / Data DVB_SPI
	Displays the internal status of the modulator.	Correct / Internal fault
	Displays the synchronisation status of the clock with respect to the Transport Stream.	Clock coherent / PLL unlocked / Clock not coherent
	Displays the type of clock used.	CLOCK internal, CLOCK external, CLOCK data derived
	Displays the status of configuration.	CFG done / CFG underway / CFG fault
	Displays the SFN mode operation.status	SFN ON / SFN OFF
	Displays the status of the modulator.	Not configured / Configured / CFG fault <u>Not configured</u> : The modulator does not accept the requested configuration.
	Displays the Transport Stream status.	TS status normal / abnormal
	Displays the GPS status.	GPS missing / GPS présent <u>GPS missing</u> : The 10 MHz and/or 1 PPS reference signals are missing.
	Displays the output interface status of the modulator.	IQ outputs toggling / IQ outputs stuck
	Indicates which exciter data are displayed.	EXC A / EXC B

(*) : Only Dual-Drive version.

2.1.46. "MODULATOR - MIP" window

This window is called up by pressing the "MIP" control keys in the "MODULATOR" window.

This window displays the MIP data contained in the Transport Stream. This windows is available in SFN mode only. It isn't available in 8VSBB modulator unit (ATSC Transmitters).



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
OTHER EXCITER	Calls up data from the other exciter. (*)	
PREV SCREEN	Calls up the "MODULATOR" window.	

MESSAGE	FUNCTIONS	DISPLAY/COMMENTS
MODULATOR - MIP	Gives the window name.	
FREQ CFFSET 1234567890	Displays the RF synthesizer frequency offset value.	
POWER (dB) -1234.5	Displays the output RF power offset value.	The typical output power level is 0 dB (value of the required power).
TIME CFFSET (100 ns) -12345	Displays the offset delay value contained in the MIP when the transmitter is in SFN mode.	
EXC A	Indicates which exciter data are displayed. (*)	EXC A / EXC B

(*) : Only Dual-Drive version.

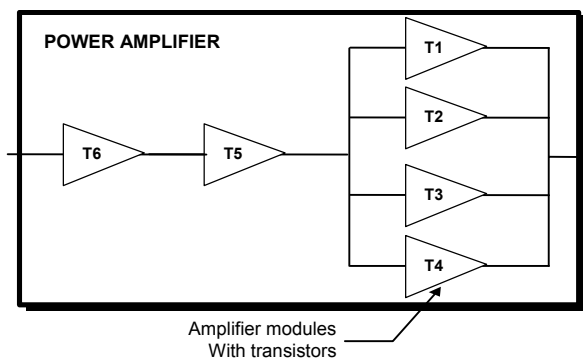
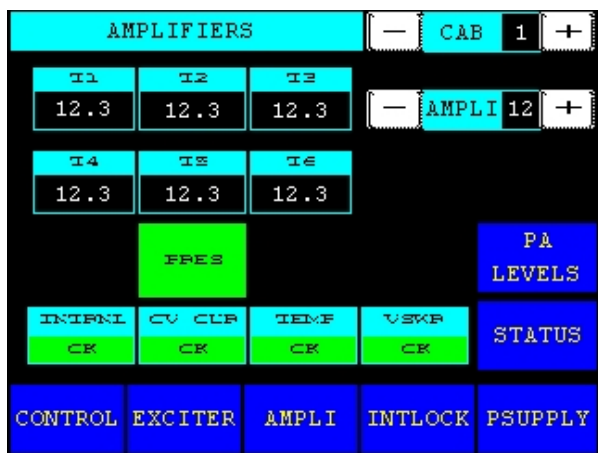
2.1.47. "RF AMPLIFIERS" window, 6 current values (OPTIMUN / ULTIMATE FAMILY)

This window is called up by the "AMPLI" command in the other windows.

It displays the status of an RF amplifier.

Notes : An amplifier which is not included in the transmitter configuration can not be accessed by the keys "± AMPLI".

A cabinet which is not included in the transmitter configuration can not be accessed by the "± CAB" control keys.



CONTROL KEYS	FUNCTIONS	DISPLAY/COMMENTS
	Decrements the cabinet number.	The number resulting from the decrementation is displayed in the message window between the "+ CAB" and "- CAB" control keys. Command is disabled while the PCL is locked (disabled).
	Increments the cabinet number.	The number resulting from the incrementation is displayed in the message window between the "+ CAB" and "- CAB" control keys. Command is disabled while the PCL is locked (disabled).
	Decrements the amplifier number in a particular cabinet.	The number resulting from the decrementation is displayed in the message window between the "+ AMPLI" and "- AMPLI" control keys. Command is disabled while the PCL is locked (disabled).
	Increments the amplifier number in a particular cabinet.	The number resulting from the incrementation is displayed in the message window between the "+ AMPLI" and "- AMPLI" control keys. Command is disabled while the PCL is locked (disabled).
	Calls up the "TRANSMITTER STATUS" window.	
	Calls up the "CONTROL Level 1" window.	