S. No	Current State	Condition	Next State	Outputs
		power_on || mr_main_reset	GENERATE_CODE_GROUPS	
1	GENERATE_CODE_GROUPS	(tx_o_set == /V/) || (tx_o_set == /S/) || (tx_o_set == /T/) || (tx_o_set == /R/)	SPECIAL_GO	
		tx_o_set == /D/	DATA_GO	
		(tx_o_set == /I/) || (tx_o_set == /LI/)	IDLE_DISPARITY_TEST	
		tx_o_set == /C/	CONFIGURATION_C1A	
2	SPECIAL_GO	cg_timer_done	GENERATE_CODE_GROUPS	tx_code-group <= tx_o_set tx_even <= !tx_even TX_OSET.indicate PUDR
3	DATA_GO	cg_timer_done	GENERATE_CODE_GROUPS	tx_code-group <= ENCODE(TXD<7:0>) tx_even <= !tx_even TX_OSET.indicate PUDR
4	IDLE_DISPARITY_TEST	tx_disparity == POSITIVE	IDLE_DISPARITY_WRONG	
		tx_disparity == NEGATIVE	IDLE_DISPARITY_OK	
5	IDLE_DISPARITY_WRONG	cg_timer_done	IDLE_I1B	tx_code-group <= /K28.5/ tx_even <= TRUE PUDR
6	IDLE_I1B	cg_timer_done	GENERATE_CODE_GROUPS	tx_even <= FALSE TX_OSET.indicate PUDR if(TX_OSET==/LI/) then (tx_code-group <= /D6.5/) else (tx_code-group <= /D5.6/)
7	IDLE_DISPARITY_OK	cg_timer_done	IDLE_I2B	tx_code-group <= /K28.5/ tx_even <= TRUE PUDR

8	IDLE_I2B	cg_timer_done	GENERATE_CODE_GROUPS	tx_even <= FALSE TX_OSET.indicate PUDR if(TX_OSET==/LI/) then (tx_code-group <= /D26.4/) else (tx_code-group <= /D16.2/)
9	CONFIGURATION_C1A	cg_timer_done	CONFIGURATION_C1B	tx_code-group <= /K28.5/ tx_even <= TRUE PUDR
10	CONFIGURATION_C1B	cg_timer_done	CONFIGURATION_C1C	tx_code-group <= /D21.5/ tx_even <= FALSE PUDR
11	CONFIGURATION_C1C	cg_timer_done	CONFIGURATION_C1D	tx_code-group <= ENCODE(tx_Config_Reg<D7:D0>) tx_even <= TRUE PUDR
12	CONFIGURATION_C1D	(tx_o_set == /C/) && cg_timer_done	CONFIGURATION_C2A	tx_code-group <= ENCODE(tx_Config_Reg<D15:D8>) tx_even <= FALSE TX_OSET.indicate PUDR
		(tx_o_set != /C/) && cg_timer_done	GENERATE_CODE_GROUPS	
13	CONFIGURATION_C2A	cg_timer_done	CONFIGURATION_C2B	tx_code-group <= /K28.5/ tx_even <= TRUE PUDR
14	CONFIGURATION_C2B	cg_timer_done	CONFIGURATION_C2C	tx_code-group <= /D2.2/ tx_even <= FALSE PUDR
15	CONFIGURATION_C2C	cg_timer_done	CONFIGURATION_C2D	tx_code-group <= ENCODE(tx_Config_Reg<D7:D0>) tx_even <= TRUE PUDR

| 16 | CONFIGURATION_C2D | cg_timer_done | GENERATE_CODE_GROUPS | tx_code-group <= ENCODE(tx_Config_Reg<D15:D8>) tx_even <= FALSE TX_OSET.indicate PUDR |