S. No	Current State	Condition	Next State	Outputs
		power_on || mr_main_reset	WAIT_FOR_K	
		sync_status == FAIL && SUDI	LINK_FAILED	

1	LINK_FAILED	SUDI	WAIT_FOR_K	rx lpi active <= FALSE;
				IF xmit != DATA, THEN
				RUDI(INVALID)
				IF receiving=TRUE, THEN
				receiving <= FALSE;
				RX_ER <= TRUE.
				ELSE
				RX_DV <= FALSE;
				RX_ER <= FALSE.

2	WAIT_FOR_K	SUDI([/K28.5/] && EVEN)	RX_K	receiving <= FALSE RX_DV <= FALSE RX_ER <= FALSE
3	RX_K	SUDI([/D21.5/] || [/D2.2/])	RX_CB	receiving <= FALSE RX_DV <= FALSE RX_ER <= FALSE
		SUDI(!ϵ[/D/]) && xmit != DATA	RX_INVALID	
		xmit == DATA && (SUDI([/D6.5/] || [/D26.4/])	RX_SLEEP	
		(xmit != DATA && SUDI(ϵ[/D/] && ![/D21.5/] && ![/D2.2/])) || (xmit == DATA && idle_d)	IDLE_D	
4	RX_CB	SUDI(ϵ[/D/])	RX_CC	receiving <= FALSE RX_DV <= FALSE RX_ER <= FALSE rx_lpi_active <= FALSE
		SUDI(! ϵ[/D/])	RX_INVALID	
5	RX_CC	SUDI(ϵ[/D/])	RX_CD	rx_Config_Reg<D7:D0> <= DECODE([/x/])
		SUDI(! ϵ[/D/])	RX_INVALID	
6	RX_CD	SUDI([/K28.5/] && EVEN)	RX_K	rx_Config_Reg<D15:D8> <= DECODE([/x/]) RUDI(/C/)
		SUDI(![/K28.5/] || ODD)	RX_INVALID	
7	IDLE_D	SUDI(![/K28.5/]) && xmit !=DATA	RX_INVALID	receiving <= FALSE RX_DV <= FALSE RX_ER <= FALSE RUDI(/I/) rx_lpi_active <= FALSE
		SUDI && xmit==DATA && carrier_detect	CARRIER_DETECT	
		SUDI && xmit==DATA && !carrier_detect || SUDI([/K28.5/])	RX_K	
8	CARRIER_DETECT	![/S/]	FALSE_CARRIER	receiving <= TRUE
		[/S/]	START_OF_PACKET	
9	FALSE_CARRIER	SUDI([/K28.5/] && EVEN)	RX_K	RX_ER <= TRUE RXD<7:0> <= 0000 1110

10	RX_INVALID	SUDI([/K28.5/] && EVEN)	RX_K	IF xmit==CONFIGURATION THEN
				RUDI(INVALID)
				IF xmit==DATA THEN
				receiving <= TRUE
				rx_lpi_active <= FALSE

		SUDI(![/K28.5/] && EVEN)	WAIT_FOR_K	
11	START_OF_PACKET	SUDI	RECEIVE	RX_DV <= TRUE RX_ER <= FALSE RXD<7:0> <= 0101 0101
12	RECEIVE	check_end == (/K28.5/D/K28.5/ || /K28.5/(D21.5 + D2.2)/D0.0/) && EVEN	EARLY_END	
		EVEN && check_end == /T/R/K28.5/	TRI+RRI	
		check_end == /T/R/R/	TRR+EXTEND	
		check_end == /R/R/R/	EARLY_END_EXT	
		ϵ[/D/]	RX_DATA	
		ELSE	EX_DATA_ERROR	
13	EARLY_END	SUDI(![/D21.5/] && ![/D2.2/])	IDLE_D	RX_ER <= TRUE
		SUDI([/D21.5/] || [/D2.2/])	RX_CB	
14	TRI+RRI	SUDI([/K28.5/])	RX_K	receiving <= FALSE RX_DV <= FALSE RX_ER <= FALSE
15	TRR+EXTEND	SUDI	EPD2_CHECK_END	RX_DV <= FALSE RX_ER <= TRUE RXD<7:0> <= 0000 1111

16	EARLY_END_EXT	SUDI	EPD2_CHECK_END	RX_ER <= TRUE
17	RX_DATA	SUDI	RECEIVE	RX_ER <= FALSE RXD<7:0> <= DECODE([/x/])
18	RX_DATA_ERROR	SUDI	RECEIVE	RX_ER <= TRUE
19	EPD2_CHECK_END	check_end == /R/R/R/	TRR+EXTEND	
		check_end==/R/R/K28.5/ && EVEN	TRI+RRI	
		check_end == /R/R/S/	PACKET_BURST_RRS	
		ELSE	EXTEND_ERR	
20	PACKET_BURST_RRS	SUDI([/S/])	START_OF_PACKET	RX_DV <= FALSE RXD<7:0> <= 0000 1111
21	EXTEND_ERR	SUDI([/S/])	START_OF_PACKET	RX_DV <= FALSE RXD<7:0> <= 0001 1111
		SUDI([/K28.5/] && EVEN)	RX_K	
		SUDI(![/S/] && !([/K28.5/] && EVEN))	EPD2_CHECK_END	
22	RX_SLEEP	UCT	START_TQ_TIMER	rx_lpi_active <= TRUE receiving <= FALSE RX_DV <= FALSE RX_ER <= TRUE RXD <= 0000 0001
23	START_TQ_TIMER	UCT	LP_IDLE_D	Start rx_tq_timer
24	LP_IDLE_D	signal_detect==OK && rx_tq_timer_done	RX_LINK_FAIL	
		signal_detect==OK && !rx_tq_timer_done && xmit != DATA && SUDI(![/K28.5/])	RX_INVALID	
		signal_detect == FAIL	RX_QUIET	
		signal_detect==OK && !rx_tq_timer_done && (xmit == DATA && SUDI || SUDI(![/K28.5/]))	LPI_K	
25	LPI_K	signal_detect == FAIL	RX_QUIET	
		signal_detect==OK && SUDI([/D21.5/] || [/D2.2/])	RX_CB	
		signal_detect==OK && xmit != DATA && SUDI(! є[/D/])	RX_INVALID	
		signal_detect==OK && SUDI([/D5.6/] || [/D16.2/])	IDLE_D	
		signal_detect==OK && xmit==DATA && SUDI([/D6.5/] || [/D26.4/])	START_TQ_TIMER	
		signal_detect==OK && (xmit != DATA && SUDI(є [/D/] && ![/D21.5/] && ![/D2.2/] && ![/D5.6/] && ![/D16.2/]) || xmit == DATA && SUDI(![/D21.5/]&& ![/D2.2/] && ![/D5.6/] && ![/D16.2/] && ![/D6.5] && ![D26.4]))	LP_IDLE_D	
26	RX_QUIET	signal_detect==OK	RX_WAKE	rx_quiet <= TRUE
		signal_detect == FAIL && rx_tq_timer_done	RX_LINK_FAIL	
27	RX_WAKE	signal_detect == FAIL	RX_QUIET	
		signal_detect==OK && rx_tw_timer_done	RX_WTF	rx_quiet <= FALSE Start rx_tw_timer
		signal_detect==OK && !rx_tw_timer_done && code_sync_status == OK && SUDI([/K28.5/] && EVEN)	RX_WAKE_DONE	
28	RX_WTF	signal_detect == FAIL	RX_QUIET	
		signal_detect==OK && rx_wf_timer_done	RX_LINK_FAIL	wake_error_counter++ Start rx_wf_timer
		signal_detect==OK && !rx_wf_timer_done && code_sync_status == OK * SUDI([/K28.5/] && EVEN)	RX_WAKE_DONE	
29	RX_LINK_FAIL	SUDI	LINK_FAILED	rx_quiet <= FALSE rx_lpi_active <= FALSE
30	RX_WAKE_DONE	UCT	LPI_K	Start rx_tq_timer