REGISTERS' DEFINITION

For BK4819

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BEKEN CORP
SHANGHAI

目录

Registers' Definition

Register	Default	Description
REG_00<15>	*0*	*Soft Reset.* *1=Reset; 0=Normal.*
REG_02<15>	*Read Only*	*FSK Tx Finished Interrupt.*
REG_02<14>	*Read Only*	*FSK FIFO Almost Empty Interrupt Enable.*
REG_02<13>	*Read Only*	*FSK Rx Finished Interrupt Enable.*
REG_02<12>	*Read Only*	*FSK FIFO Almost FullInterrupt.*
REG_02<11>	*Read Only*	*DTMF/5TONE Found Interrupt.*
REG_02<10>	*Read Only*	*CTCSS/CDCSSTail Found Interrupt.*
REG_02<9>	*Read Only*	*CDCSS Found Interrupt.*
REG_02<8>	*Read Only*	*CDCSS Lost Interrupt.*
REG_02<7>	*Read Only*	*CTCSS Found Interrupt.*
REG_02<6>	*Read Only*	*CTCSS Lost Interrupt.*
REG_02<5>	*Read Only*	*VoX Found Interrupt.*
REG_02<4>	*Read Only*	*VoX Lost Interrupt.*
REG_02<3>	*Read Only*	*Squelch Found Interrupt.*
REG_02<2>	*Read Only*	*Squelch Lost Interrupt.*
REG_02<1>	*Read Only*	*FSK Rx Sync Interrupt.*
REG_07<15:0>		*When <15:13>=0 for CTC1* *<12:0>=CTC1 frequencycontrolword* *= freq(Hz)*20.64888 for XTAL 13M/26M or* *=freq(Hz)*20.97152 for XTAL 12.8M/19.2M/25.6M/38.4M* *When<15:13>=1 for CTC2(Tail 55Hz Rx detection)* *<12:0>=CTC2(should below 100Hz)frequencycontrolword* *= 25391/freq(Hz) for XTAL 13M/26M or* *= 25000/freq(Hz) for XTAL 12.8M/19.2M/25.6M/38.4M* *When <15:13>=2 for CDCSS 134.4Hz* *<12:0>=CDCSS baud rate frequency(134.4Hz) controlword* *= freq(Hz)*20.64888 for XTAL 13M/26M or* *=freq(Hz)*20.97152 for XTAL 12.8M/19.2M/25.6M/38.4M*
REG_08<15:0>		*<15>=1 for CDCSS high 12bit* *<15>=0 for CDCSS low 12bit* *<11:0>=CDCSShigh/low 12bit code*
REG_09<15:0>		*DTMF/SelCall Symbol Coefficient for Detection.* *<15:12>=Symbol Number* *<7:0>=Coefficient.*
REG_0A<6>	*Read Only*	*GPIO0 (PIN28) Input Indicator.*

		1=High; 0=Low.
REG_0A<5>	*Read Only*	*GPIO1 (PIN29) Input Indicator.* *1=High; 0=Low.*
REG_0A<4>	*Read Only*	*GPIO2 (PIN30) Input Indicator.* *1=High; 0=Low.*
REG_0A<3>	*Read Only*	*GPIO3 (PIN31) Input Indicator.* *1=High; 0=Low.*
REG_0A<2>	*Read Only*	*GPIO4 (PIN32) Input Indicator.* *1=High; 0=Low.*
REG_0A<1>	*Read Only*	*GPIO5 (PIN1) Input Indicator.* *1=High; 0=Low.*
REG_0A<0>	*Read Only*	*GPIO6 (PIN2) Input Indicator.* *1=High; 0=Low.*
REG_0B<11:8>	*Read Only*	*DTMF/5Tone Code Received.*
REG_0B<7>	*Read Only*	*FSK Rx SyncNegativehas been Found.*
REG_0B<6>	*Read Only*	*FSK Rx SyncPositivehas been Found.*
REG_0B<4>	*Read Only*	*FSK Rx CRC Indicator.* *1=CRC Pass; 0=CRC Fail.*
REG_0C<15:14>	*Read Only*	*<14>:CDCSS positive code received* *<15>:CDCSS negative code received*
REG_0C<13:12>	*Read Only*	*CTCSS Phase Shift Received.* *00=No phase shift* *01=CTCSS0 120° phase shift,* *10= CTCSS0 180° phase shift* *11= CTCSS0 240° phase shift*
REG_0C<10:11>	*Read Only*	*<11>:CTC2(55Hz) received* *<10>:CTC1 received*
REG_0C<2>	*Read Only*	*VoXIndicator* *0: No* *1: Yes*
REG_0C<1>	*Read Only*	*Squelch resultoutput.* *1=Link; 0=Loss*
REG_0C<0>	*Read Only*	*Interrupt Indicator.* *1=Interrupt Request; 0=No Request.*
REG_0D<15>	*Read Only*	*Frequency Scan Indicator.* *1=Busy; 0=Finished.*
REG_0D<10:0>	*Read Only*	*Frequency Scan High 16 bits.*
REG_0E<15:0>	*Read Only*	*Frequency Scan Low 16 bits.* *= **REG_0D<10:0>**<<16 + **REG_0E<15:0>**, unit is 10Hz*
REG_10<15:0>	*0x0038*	*Rx AGC Gain Table[0]. (Index Max->Min is 3,2,1,0,-1)*

		<9:8>=LNA Gain Short *11=0dB; 10=-11dB; 01=-16dB; 00=-19dB.* *<7:5>=LNA Gain* *111=0dB; 110=-2dB; 101=-4dB; 100=-6dB;* *011=-9dB; 010=-14dB; 001=-19dB; 000=-24dB.* *<4:3>=MIXER Gain* *11=0dB; 10=-3dB; 01=-6dB; 00=-8dB.* *<2:0>=PGA Gain* *111=0dB; 110=-3dB; 101=-6dB; 100=-9dB;* *011=-15dB; 010=-21dB; 001=-27dB; 000=-33dB.*
REG_11<15:0>	*0x025a*	*Rx AGC Gain Table[1]. (Index Max->Min is 3,2,1,0,-1)* *Same as REG_10.*
REG_12<15:0>	*0x037b*	*Rx AGC Gain Table[2]. (Index Max->Min is 3,2,1,0,-1)* *Same as REG_10.*
REG_13<15:0>	*0x03de*	*Rx AGC Gain Table[3].(Index Max->Min is 3,2,1,0,-1)* *Same as REG_10.*
REG_14<15:0>	*0x0000*	*Rx AGC Gain Table[-1].(Index Max->Min is 3,2,1,0,-1)* *Same as REG_10.*
REG_18<15:11>	*0b0100 0*	
REG_18<10:9>	*0b10*	
REG_18<8:7>	*0b10*	
REG_18<6>	*0b0*	
REG_18<5:4>	*0b10*	
REG_18<3>	*0b0*	
REG_18<2:0>	*0b101*	
REG_19<15>	*1*	*Automatic MIC PGA Gain Controller (MIC AGC) Disable.* *1=Disable; 0=Enable.*
REG_1A<15:12>	*0b0101*	*Crystal vReg Bit.*
REG_1A<11:8>	*0b1000*	*Crystal iBit.*
REG_1A<7:5>	*0b010*	*Range_sel*
REG_1A<4:0>	*0b1 0000*	*Band_sel*
REG_1F<15:12>	*0b1000*	*Rf VCO_regvco_vbit*
REG_1F<11:8>	*0b1000*	*Rf pll_cp_bit_0*
REG_1F<7:6>	*0b01*	*Rf pll_r_bit_0*
REG_1F<5:4>	*0b01*	*Rf pll_r_bit_1*
REG_1F<3:0>	*0b1000*	*Rf PLL CP bit_1.*
REG_24<5>	*0*	*DTMF/SelCall Enable.* *1=Enable; 0=Disable.*
REG_24<4>	*1*	*DTMF or SelCall Detection Mode.* *1=for DTMF; 0=for SelCall.*
REG_24<3:0>	*0xe*	*Max Symbol Number for SelCall Detection.*
REG_28<15:14>	*0b01*	*Expander (AF Rx) Ratio.* *00=Disable; 01=1:2; 10=1:3; 11=1:4*

REG_28<13:7>	*0x56*	*Expander (AF Rx) 0 dB point(dB)*
REG_28<6:0>	*0x38*	*Expander (AF Rx) noise point(dB)*
REG_29<15:14>	*0b10*	*Compress (AF Tx) Ratio.* *00=Disable; 01=1.333:1; 10=2:1; 11=4:1*
REG_29<13:7>	*0x56*	*Compress (AF Tx) 0 dB point(dB)*
REG_29<6:0>	*0x40*	*Compress (AF Tx) noise point(dB)*
REG_2B<15>	*1*	*CTCSS/CDCSS DCCancelafterFMDemodulation Enable.* *1=Enable; 0=Disable.*
REG_2B<14>	*1*	*AFDCCancelafterFMDemodulation Enable.* *1=Enable; 0=Disable.*
REG_2B<10>	*0*	*Disable AFRxHPF300filter.* *0=Enable; 1=Disable*
REG_2B<9>	*0*	*Disable AF RxLPF3K filter.* *0=Enable; 1=Disable*
REG_2B<8>	*0*	*Disable AF Rx de-emphasisfilter.* *0=Enable; 1=Disable*
REG_2B<2>	*0*	*Disable AFTxHPF300filter.* *0=Enable; 1=Disable*
REG_2B<1>	*0*	*Disable AFTxLPF1filter.* *0=Enable; 1=Disable*
REG_2B<0>	*0*	*Disable AFTxpre-emphasisfilter.* *0=Enable; 1=Disable*
REG_2E<9:8>	*0x10*	*CTCSS/CDCSS Tx Gain2 Tuning (after Gain1).* *00=12dB; 01=6dB; 10=0dB; 11=-6dB*
REG_30<15>	*0*	*VCO Calibration Enable.* *1=Enable, 0=Disable*
REG_30<13:10>	*0*	*Rx Link Enable (include LNA/MIXER/PGA/ADC).* *1111=Enable, 0000=Disable*
REG_30<9>	*0*	*AF DAC Enable.* *1=Enable, 0=Disable.*
REG_30<7:4>	*0*	*PLL/VCO Enable.* *1111=Enable, 0000=Disable*
REG_30<3>	*0*	*PA Gain Enable.* *1=Enable, 0=Disable*
REG_30<2>	*0*	*MIC ADC Enable.* *1=Enable, 0=Disable*
REG_30<1>	*0*	*Tx DSP Enable.* *1=Enable, 0=Disable*
REG_30<0>	*0*	*Rx DSP Enable.* *1=Enable, 0=Disable*
REG_31<3>	*0*	*Enable Compander Function.* *1= Enable; 0=Disable*
REG_31<2>	*0*	*Enable VOX detection.*

		1=Enable; 0=Disable
REG_31<1>	0	Enable Scramble Function. 1=Enable; 0=Disable
REG_32<15:14>	0b00	FrequencyScan Time. 00=0.2 Sec; 01=0.4 Sec; 10=0.8 Sec; 11=1.6 Sec
REG_32<0>	0	FrequencyScanEnable. 1=Enable; 0=Disable.
REG_33<14>	1	GPIO0 (PIN28) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<13>	1	GPIO1 (PIN29) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<12>	1	GPIO2 (PIN30) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<11>	1	GPIO3 (PIN31) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<10>	1	GPIO4 (PIN32) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<9>	1	GPIO5 (PIN1) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<8>	1	GPIO6 (PIN2) Output Disable. 1=Output Disable; 0=Output Enable.
REG_33<6>	0	GPIO0 (PIN28) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_33<5>	0	GPIO1 (PIN29) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_33<4>	0	GPIO2 (PIN30) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_33<3>	0	GPIO3 (PIN31) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_33<2>	0	GPIO4 (PIN32) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_33<1>	0	GPIO5 (PIN1) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_33<0>	0	GPIO6 (PIN2) Output Value. 1= High when Output Enable; 0=Low when Output Enable.
REG_34<15:12>	0x0	GPIO3 (PIN31) Output Type Selection. The Definitions is the same as REG_34<3:0>.
REG_34<11:8>	0x0	GPIO4 (PIN32) Output Type Selection. The Definitions is the same as REG_34<3:0>.
REG_34<7:4>	0x0	GPIO5 (PIN1) Output Type Selection. The Definitions is the same as REG_34<3:0>.
REG_34<3:0>	0x0	GPIO6 (PIN2) Output Type Selection. 0=High/Low 1=Interrupt

		2=Squelch 3=VoX 4=CTCSS/CDCSS Compared Result 5=CTCSS Compared Result 6=CDCSS Compared Result 7=Tail Detected Result 8=DTMF/5Tone Symbol Received Flag 9=CTCSS/CDCSS Digital Wave Others=Reserved
REG_35<11:8>	0x0	GPIO0 (PIN28) Output Type Selection. The Definitions is the same as REG_34<3:0>.
REG_35<7:4>	0x0	GPIO1 (PIN29) Output Type Selection. The Definitions is the same as REG_34<3:0>.
REG_35<3:0>	0x0	GPIO2 (PIN30) Output Type Selection. The Definitions is the same as REG_34<3:0>.
REG_36<15:8>	0	PA Biasoutput 0~3.2V 0x00=0V … 0xFF=3.2V
REG_36<7>	0	1=Enable PACTLoutput; 0=Disable(Output 0 V)
REG_36<5:3>	0b111	PA Gain1 Tuning. 111(max)->000(min)
REG_36<2:0>	0b111	PA Gain2 Tuning. 111(max)->000(min)
REG_37<14:12>	0b001	DSP Voltage Setting.
REG_37<11>	1	ANA LDO Selection. 1=2.7v, 0=2.4v
REG_37<10>	1	VCO LDO Selection. 1=2.7v, 0=2.4v
REG_37<9>	1	RF LDO Selection. 1=2.7v, 0=2.4v
REG_37<8>	1	PLL LDO Selection. 1=2.7v, 0=2.4v
REG_37<7>	0	ANA LDO Bypass. 1=Bypass, 0=Enable.
REG_37<6>	0	VCO LDO Bypass. 1=Bypass, 0=Enable.
REG_37<5>	0	RF LDO Bypass. 1=Bypass, 0=Enable.
REG_37<4>	0	PLL LDO Bypass. 1=Bypass, 0=Enable.
REG_37<3>	0	Reserved.
REG_37<2>	0	DSP Enable. 1=Enable, 0=Disable.

REG_37<1>	*0*	*XTAL Enable.* *1=Enable, 0=Disable.*
REG_37<0>	*0*	*Band-Gap Enable.* *1=Enable, 0=Disable.*
REG_38<15:0>	*0x3A98*	*Frequency(Hz)= (freq_hi16<<16 + freq_lo16)*10*
REG_39<15:0>	*0x0271*	
REG_3B<15:0>	*0x5880*	*Crystal Frequency Low-16bits. LSB->5Hz*
REG_3C<15:8>	*0x4f*	*Crystal Frequency High-8bits.*
REG_3C<7:6>	*0b10*	*Crystal Frequency Mode Selection.* *00~=13MHz; 01~=19.2MHz; 10~=26MHz; 11~=38.4MHz*
REG_3D<15:0>	*0x2aab*	*IF Selection.* *0=Zero IF;* *0x2aab~=8.46kHz IF;* *0x4924~=7.25kHz IF;* *0x6800~=6.35kHz IF;* *0x871c~=5.64kHz IF;* *0xa666~=5.08kHz IF;* *0xc5d1~=4.62kHz IF;* *0xe555~=4.23kHz IF;* *if REG_43<5>=1, IF *=2;*
REG_3E<15:0>	*36458*	*Band Selection Threshold.* *~=VCO Max Frequency(Hz)/96/640*
REG_3F<15>	*0*	*FSK Tx Finished Interrupt Enable.* *1=Enable; 0=Disable.*
REG_3F<14>	*0*	*FSK FIFO Almost Empty Interrupt Enable.* *1=Enable; 0=Disable.*
REG_3F<13>	*0*	*FSK Rx Finished Interrupt Enable.* *1=Enable; 0=Disable.*
REG_3F<12>	*0*	*FSK FIFO Almost FullInterrupt Enable.* *1=Enable; 0=Disable.*
REG_3F<11>	*0*	*DTMF/5TONE Found Interrupt Enable.* *1=Enable; 0=Disable.*
REG_3F<10>	*0*	*CTCSS/CDCSSTail Found InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<9>	*0*	*CDCSS Found InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<8>	*0*	*CDCSS Lost InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<7>	*0*	*CTCSS Found InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<6>	*0*	*CTCSS Lost InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<5>	*0*	*VoX Found InterruptEnable.* *1=Enable; 0=Disable.*

REG_3F<4>	*0*	*VoX Lost InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<3>	*0*	*Squelch Found InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<2>	*0*	*Squelch Lost InterruptEnable.* *1=Enable; 0=Disable.*
REG_3F<1>	*0*	*FSK Rx Sync Interrupt Enable.* *1=Enable; 0=Disable.*
REG_40<12>	*1*	*Enable RF TxDeviation.* *1=Enable; 0=Disable*
REG_40<11:0>	*0x4D0*	*RF Tx Deviation Tuning (Apply for both in-band signal and sub-audio signal).* *0=min; 0xFFF=max*
REG_43<14:12>	*0b100*	*RF filter bandwidth (Apass=0.1dB)* *000 = 1.7 kHz* *001 = 2 kHz* *010 = 2.5 kHz* *011 = 3 kHz* *100 = 3.75 kHz* *101 = 4 kHz* *110 = 4.25 kHz* *111 = 4.5 kHz* *if REG_43<5>=1, RF filter bandwidth *=2;*
REG_43<11:9>	*0b000*	*RF filter bandwidth when signal is weak (Apass=0.1dB)* *000 = 1.7 kHz* *001 = 2 kHz* *010 = 2.5 kHz* *011 = 3 kHz* *100 = 3.75 kHz* *101 = 4 kHz* *110 = 4.25 kHz* *111 = 4.5 kHz* *if REG_43<5>=1, RF filter bandwidth *=2;*
REG_43<8:6>	*0b001*	*AFTxLPF2 filter Band Width (Apass=1dB) Selection.* *100 = 4.5 kHz* *101 = 4.25 kHz* *110 =4kHz* *111 = 3.75 kHz* *000 = 3 kHz (for 25k Channel Space)* *001 = 2.5 kHz (for 12.5k Channel Space)* *010 = 2.75 kHz* *011 =3.5 kHz*
REG_43<5:4>	*0b00*	*BW Mode Selection.* *00=12.5k; 01=6.25k; 10=25k/20k*

REG_43<2>	*0*	*Gain after FM Demodulation.* *1=6dB; 0=0 dB.*
REG_44<15:0>	*0x9009*	*300Hz AF Response coefficient for Tx.*
REG_45<15:0>	*0x31a9*	*300Hz AF Response coefficient for Tx.*
REG_46<10:0>	*0x50*	*Voice AmplitudeThreshold for VOX=1 detect*
REG_47<13>	*1*	*AF Output Inverse Mode.* *1=Inverse*
REG_47<11:8>	*0x1*	*AFOutputSelection.* *0x0=Mute;* *0x1=Normal AF Out;* *0x2=Tone Out for Rx (Should enable Tone1 first);* *0x3=Beep Out for Tx (Should enable Tone1 first and set REG_03[9]=1 to enable AF;* *0x6=CTCSS/CDCSS Out for Rx Test;* *0x8=FSK Out for Rx Test;* *Others=Reserved;*
REG_47<0>	*0*	*AF Tx Filter Bypass All.* *1=Bypass All AF Tx filter; 0=Normal.*
REG_48<11:10>	*0b00*	*AF Rx Gain1.* *00=0dB;01=-6dB;10=-12dB;11=-18dB*
REG_48<9:4>	*0x3C*	*AF Rx Gain2.* *-26dB~5.5dB, 0.5dB/step.* *0x00=mute*
REG_48<3:0>	*0b1111*	*AF DAC Gain (after Gain1 and Gain2).* *1111=max; 0000=min; about 2dB/step*
REG_49<15:14>	*0b00*	*High/Low Lo Selection.* *0X=Auto High/Low Lo; 10=Low Lo; 11=High Lo.*
REG_49<13:7>	*0x50*	*RF AGC High Threshold. LSB->1dB*
REG_49<6:0>	*0x30*	*RF AGC Low Threshold. LSB->1dB*
REG_4B<5>	*0*	*AF Level Controller(ALC) Disable.* *1=Disable; 0=Enable.*
REG_4D<7:0>	*0x20*	*Glitch threshold for Squelch =0*
REG_4E<13:11>	*0b101*	*Squelch=1 Delay Setting. （5ms）*
REG_4E<10:9>	*0b111*	*Squelch=0 Delay Setting.（5ms）*
REG_4E<7:0>	*0x08*	*Glitch threshold for Squelch =1*
REG_4F<14:8>	*0x2F*	*Ex-noise threshold for Squelch =0*
REG_4F<6:0>	*0x2E*	*Ex-noise threshold for Squelch =1*
REG_50<15>	*0*	*Enable AF Tx Mute (for DTMF Tx or other applications).* *1=Mute; 0=Normal*
REG_51<15>	*0*	*1=Enable TxCTCSS/CDCSS; 0=Disable*
REG_51<14>	*0*	*1= GPIO6 (PIN2)Input for CDCSS; 0=Normal Mode.(for BK4819v3)*
REG_51<13>	*0*	*1=Transmit negative CDCSS code*

		0=Transmit positive CDCSScode
REG_51<12>	*0*	*CTCSS/CDCSS mode selection.* *1=CTCSS, 0=CDCSS*
REG_51<11>	*0*	*CDCSS 24/23bit selection.* *1=24bit, 0=23bit*
REG_51<10>	*0*	*1050HzDetectionMode.* *1=1050/4 Detect Enable, CTC1 should be set to 1050/4 Hz*
REG_51<9>	*0*	*Auto CDCSS Bw Mode.* *1=Disable; 0=Enable.*
REG_51<8>	*0*	*Auto CTCSS Bw Mode.* *0=Enable; 1=Disable*
REG_51<6:0>	*0*	*CTCSS/CDCSS Tx Gain1 Tuning.* *0=min; 0x7F=max*
REG_52<15>	*0*	*Enable 120/180/240 degree shift CTCSS or 134.4Hz Tail when CDCSS mode.* *0=Normal, 1=Enable*
REG_52<14:13>	*0b00*	*CTCSS tail modeselection (only valid when REG_52<15>=1).* *00= for 134.4Hz CTCSS Tail when CDCSS mode.* *01=CTCSS0 120° phase shift,* *10= CTCSS0 180° phase shift* *11= CTCSS0 240° phase shift*
REG_52<12>	*0*	*CTCSSDetectionThreshold Mode,* *1=~0.1%; 0=0.1 Hz*
REG_52<11:6>	*0x0A*	*CTCSS found detect threshold.*
REG_52<5:0>	*0x0F*	*CTCSS lost detect threshold.*
REG_54<15:0>	*0x9009*	*300Hz AF Response coefficient for Rx.*
REG_55<15:0>	*0x31a9*	*300Hz AF Response coefficient for Rx.*
REG_58<15:13>	*000*	*FSK Tx Mode Selection.* *000 for FSK1.2K and FSK2.4K Tx;* *001 for FFSK1200/1800 Tx;* *011 for FFSK1200/2400 Tx;* *101 for NOAA SAME Tx*
REG_58<12:10>	*000*	*FSK Rx Mode Selection.* *000 for FSK1.2K, FSK2.4K Rx and NOAA SAME Rx;* *111 for FFSK1200/1800 Rx;* *100 for FFSK1200/2400 Rx;*
REG_58<9:8>	*00*	*FSK Rx Gain.*
REG_58<7:6>	*00*	*FSK Enable 11（FSK Enable，IT must set 11）* *FSK Disable 00*
REG_58<5:4>	*00*	*FSK Preamble Type Selection.* *11=0xAA; 10=0x55; 00=0xAA or 0x55 due to the MSB of FSK Sync Byte 0.*
REG_58<3:1>	*000*	*FSK Rx Band Width Setting.* *100 for FSK 2.4K and FFSK1200/2400;*

		000 for FSK 1.2K; *001 for FFSK1200/1800;* *010 for NOAA SAME Rx*
REG_58<0>	*0*	*FSK Enable.* *1=Enable; 0=Disable.*
REG_59<15>	*0*	*Clear TX FIFO, 1=clear*
REG_59<14>	*0*	*Clear RX FIFO, 1=clear*
REG_59<13>	*0*	*1=Enable FSK Scramble*
REG_59<12>	*0*	*1=Enable FSK RX*
REG_59<11>	*0*	*1=Enable FSK TX*
REG_59<10>	*0*	*1=Invert FSK data when RX*
REG_59<9>	*0*	*1=Invert FSK data when TX*
REG_59<7:4>	*0*	*FSK Preamble Length Selection* *0=1 byte; 1=2 bytes; 2=3 bytes; …; 15=16 bytes.*
REG_59<3>	*0*	*FSK SyncLength Selection.* *1=4 bytes (FSK Sync Byte 0,1,2,3)* *0=2 bytes (FSK Sync Byte 0,1)*
REG_5A<15:8>	*0x85*	*FSK Sync Byte 0 (Sync Byte 0 first, then 1,2,3)*
REG_5A<7:0>	*0xCF*	*FSK Sync Byte 1*
REG_5B<15:8>	*0xAB*	*FSK Sync Byte 2*
REG_5B<7:0>	*0x45*	*FSK Sync Byte 3*
REG_5C<6>	*1*	*CRC Option Enable.* *1=Enable; 0=Disable.*
REG_5D<15:8>	*0x0F*	*FSK Data Length(Byte)Low 8bits(Total 11 bits for BK4819v3).* *For example, 0xF means 16 bytes length.*
REG_5D<7:5>	*0*	*FSK Data Length(Byte)High 3bits(Total 11 bits for BK4819v3).*
REG_5E<9:3>	*64*	*FSK Tx FIFO (Total 128 Words) Almost Empty Threshold.*
REG_5E<2:0>	*4*	*FSK Rx FIFO (Total 8 Words) Almost Full Threshold.*
REG_5F<15:0>	*x*	*FSK Word Input/Output.*
REG_63<7:0>	*Read Only*	*Glitch indicator.*
REG_64<15:0>	*Read Only*	*Voice AmplitudeOut.*
REG_65<6:0>	*Read Only*	*Ex-noiseindicator, dB/step.*
REG_67<8:0>	*Read Only*	*0.5dB/step, RSSI (dBm) ~= REG_67**<8:0>**/2 – 160.*
REG_68<15>	*Read Only*	*CTCSS Scan Indicator.* *1=Busy; 0=Found.*
REG_68<12:0>	*Read Only*	*CTCSS Frequency.* *Frequency(Hz)* *= **REG_68<12:0>/**20.64888 for 13M/26M XTAL and* *= **REG_68<12:0>/**20.97152 for 12.8M/19.2M/25.6M/38.4M XTAL*

REG_69<15>	Read Only	CDCSS Scan Indicator. 1=Busy; 0=Found.
REG_69<14>	Read Only	23 or 24 bit CDCSS Indicator.(for BK4819v3) 1=24 bit; 0=23 bit.
REG_69<11:0>	Read Only	CDCSS High 12 bits.
REG_6A<11:0>	Read Only	CDCSS Low 12 bits.
REG_6F<6:0>	Read Only	AF Tx/Rx Input Amplitude(dB)
REG_70<15>	0	Enable TONE1 1=Enable; 0=Disable.
REG_70<14:8>	0	TONE1tuninggain
REG_70<7>	0	Enable TONE2 1=Enable; 0=Disable.
REG_70<6:0>	0	TONE2/FSK tuninggain
REG_71<15:0>	0x8517	TONE1/Scramblefrequencycontrolword. =freq(Hz)*10.32444 for XTAL 13M/26M or =freq(Hz)* 10.48576 for XTAL 12.8M/19.2M/25.6M/38.4M.
REG_72<15:0>	0x2854	TONE2/FSK frequencycontrolword =freq(Hz)*10.32444 for XTAL 13M/26M or =freq(Hz)* 10.48576 for XTAL 12.8M/19.2M/25.6M/38.4M.
REG_73<13:11>	0b000	Automatic Frequency Correction(AFC) Range Selection. 000=max; 111=min
REG_73<4>	0	Automatic Frequency Correction(AFC) Disable. 1=Disable; 0=Enable.
REG_74<15:0>	0xf50b	3000Hz AF Response coefficient for Tx.
REG_75<15:0>	0xf50b	3000Hz AF Response coefficient for Rx.
REG_77<15:8>	0xA8	Squelch mode select 0x88/0xA8： RSSI+noise+Glitch 0xaa： RSSI +Glitch 0xcc： RSSI + noise 0xFF： RSSI
REG_77<7:0>	0xef	
REG_78<15:8>	0x48	RSSI threshold for Squelch=1, 0.5dB/step
REG_78<7:0>	0x46	RSSI threshold for Squelch =0, 0.5dB/step
REG_79<15:11>	8	VoX Detection Interval Time.
REG_79<10:0>	0x40	Voice Amplitude Threshold for VOX=0 detect
REG_7A<15:12>	8	VoX=0 Detection delay, *128ms
REG_7B<15:0>	0xae34	RSSI Table
REG_7C<15:0>	0x8000	RSSI Table
REG_7D<4:0>	0x10	MIC Sensitivity Tuning. 0x00=min; 0x1F=max; 0.5dB/step
REG_7E<15>	0	AGC Fix Mode.

		1=Fix; 0=Auto.
REG_7E<14:12>	*0b011*	*AGC Fix Index.* *011=Max, then 010,001,000,111,110,101,100(min).*
REG_7E<5:3>	*0b101*	*DC Filter Band Width for Tx (MIC In).* *000=Bypass DC filter;*
REG_7E<2:0>	*0b110*	*DC Filter Band Width for Rx (IF In).* *000=Bypass DC filter;*

Registers' Default Value

Register	Value(HEX)	Register	Value(HEX)	Register	Value(HEX)	Register	Value(HEX)
REG_00	4819	REG_20	0000	REG_40	34D0	REG_60	
REG_01		REG_21	06D8	REG_41	81C3	REG_61	
REG_02		REG_22	4D08	REG_42	6B5C	REG_62	
REG_03		REG_23	8410	REG_43	4048	REG_63	
REG_04		REG_24	8C5E	REG_44	9009	REG_64	
REG_05	7812	REG_25	C1BA	REG_45	31A9	REG_65	
REG_06		REG_26	33B0	REG_46	A050	REG_66	
REG_07		REG_27	1430	REG_47	6140	REG_67	
REG_08		REG_28	6B38	REG_48	33CF	REG_68	
REG_09		REG_29	AB40	REG_49	2830	REG_69	
REG_0A		REG_2A	4711	REG_4A	5450	REG_6A	
REG_0B		REG_2B	C000	REG_4B	7100	REG_6B	
REG_0C		REG_2C	5B05	REG_4C	A520	REG_6C	
REG_0D		REG_2D	1038	REG_4D	A020	REG_6D	
REG_0E		REG_2E	0204	REG_4E	6F08	REG_6E	
REG_0F		REG_2F	F49B	REG_4F	2F2E	REG_6F	
REG_10	0038	REG_30	0000	REG_50	3B20	REG_70	0000
REG_11	025A	REG_31	0000	REG_51	0000	REG_71	8517
REG_12	037B	REG_32	0244	REG_52	028F	REG_72	2854
REG_13	03DE	REG_33	FF00	REG_53	E66C	REG_73	4682
REG_14	0000	REG_34	0000	REG_54	9009	REG_74	F50B
REG_15	8005	REG_35	0000	REG_55	31A9	REG_75	F50B
REG_16	0000	REG_36	003F	REG_56	1021	REG_76	A126
REG_17	0000	REG_37	1F00	REG_57	0000	REG_77	A8FF
REG_18	4525	REG_38	3A98	REG_58	0000	REG_78	4846
REG_19	9041	REG_39	0271	REG_59	0000	REG_79	4040
REG_1A	5850	REG_3A	049A	REG_5A	85CF	REG_7A	889A
REG_1B	2200	REG_3B	5880	REG_5B	AB45	REG_7B	AE34
REG_1C	0000	REG_3C	4F88	REG_5C	56F9	REG_7C	8000
REG_1D	0000	REG_3D	2AAB	REG_5D	0F00	REG_7D	E550
REG_1E	4C51	REG_3E	8E6A	REG_5E	3204	REG_7E	302E
REG_1F	5454	REG_3F	0000	REG_5F		REG_7F	