

TN1211.02

SX1211SK Configuration Files

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1 Introduction

This technical note is composed of two parts: this document and a zip file containing all the .sk configuration files. Its purpose is to provide users of the SX1211SKxxx with some predefined configurations of registers corresponding to typical measurements conditions (datasheet specs) or applications (Konnex, etc) to speed up development time. Please note that prior reading of [1] and [2] is highly recommended for best understanding of this technical note.

2 Configurations Description

Config file : A_B_C_D.sk				Settings													
A	B	C	D	Fdev (kHz)	BR (kbps)	Rx pass. (kHz)	Rx butt. (kHz)	Rx polyp. (kHz)	Tx interp. (kHz)	Data mode							
Typ	ModOFF	Tx	869	50	25	378	100		200	Continuous							
			915														
	FSK	Tx	869								50	25	378	100		200	Packet
			915														
		Rx	869														
			915														
OOK	Tx	869	100	8	378	25	100	300	Packet								
		915															
	Rx	869															
		915															
LowestBR	FSK	Tx	869	33	1.6	234	75		100	Packet							
			915														
		Rx	869														
			915														
	OOK	Tx	869								100	1.6	378	25	100	300	Packet
			915														
Rx		869															
		915															
HighestBR	FSK	Tx	869	133	100	987	325		400	Packet							
			915														
		Rx	869														
			915														
	OOK	Tx	869								100	16	458	50	100	325	Packet
			915														
Rx		869															
		915															
DTS	FSK	Tx Rx	915	200	50	987	400		400	Packet							
Konnex	FSK	Tx Rx	869 ⁽¹⁾	50	33	378	125 ⁽²⁾		200	Packet ⁽³⁾							

⁽¹⁾ Exact fRF setting is 868.3MHz according to Konnex specifications

⁽²⁾ Integrates the 25ppm freq tolerance of Konnex specifications

⁽³⁾ Manchester ON according to Konnex specifications

Please note that for all configurations, output power is set to Max, and CLKOUT is disabled

3 How To Use

- ✓ Unzip SX1211SK_config_files.zip
- ✓ Install and run SX1211SK as described in [1]
- ✓ Load the configuration file of your choice via the File Menu
- ✓ Press “Send Config” button Settings are now programmed to the motherboard connected. Please note that while these configurations settings are meant to cover as much applications as possible, not all parameters may be fully aligned with customers’ requirements and hence from the base config. file one should adapt it to its exact conditions.
- ✓ You can now either:
 - Observe/measure Tx spectrum (Output power, Spurious, etc...) if you loaded a Tx config. file
 - Observe/measure Rx spectrum (Spurious, etc...) if you loaded an Rx config. file.
 - Measure Rx sensitivity if you loaded an Rx config. file and switched data mode to “Continuous” to access DATA/DCLK signals on Test pins of the SK motherboard (Cf [1])
 - Simulate a real application and measure PER by exchanging packets via the packet handler if you loaded complementary config. files on two SK motherboards (Complementary files = same A, same B, same D, C = Tx/Rx).

4 References

- [1] SX1211SK - User Guide
- [2] SX1211 Datasheet

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