NTS Silicon Valley www.nts.com

41039 Boyce Road Fremont, CA 94538 **510-578-3500** Phone **510-440-9525** Fax

Application Form for NTS TCB FCC and Industry Canada Certification Services

Only required if making an FCC application

Only required if making an Industry Canada application

Section 1. Contact and Product Details					
1.1. Main Contact De	etails (the Applicant)				
Company Name:	Safemine Ltd.				
Full Address:	Lindenstrasse 4		Contact Name:	Lukas Herzog	
	Baar 6340		Email Address:	lukas.herzog@safe-mine.com	
	Switzerland		Telephone Number:	+41417698563	
			Fax Number:	+41417608565	
Applicant's FCC Reg	gistration Number (FRN): 00208	66158		TCB FRN:	0004972030
ECC C	rantee Code : ZKS		FCC Product code	QC250A	
FCC G	rantee Code . ZNS		(limited to 14 characters):		
Canada Comp	any Number: 9849A	Canadian	Unique Product Number:	QC250A	
1.2. Certificate Hold	er's Contact Details (if different f	from 1.1)			
Company Name:					
Full Address:			Contact Name:		
			Email Address:		
			Telephone Number:		
			Fax Number:		
1.3. Technical Conta	act (if different from 1.1)				
Company Name:	National Technical Systems – Si	licon Valley			
Full Address:	41039 Boyce Road		Contact Name:	David W. Bare	
	Fremont, CA 94538		Email Address:	svdoc@nts.co	m
			Telephone Number:	510 578 3500	
			Fax Number:	510 440 9525	
1.4. Non-Technical (Contact (if different from 1.1)				
Company Name:					
Full Address:			Contact Name:		
			Email Address:		
			Telephone Number:		
			Fax Number:		
1.5 Test Facility					
Company Name: National Technical Systems – Silicon Valley					
Full Address:	41039 Boyce Road		Contact Name:	David W. Bare	
	Fremont, CA 94538		Email Address:	svdoc@nts.co	m
			Telephone Number:	510 578 3500	
			Fax Number:	510 440 9525	
1.6 Previous Application ☐ This is the first filing for the scope of this application; it has not been filed previously with another agency. ☐ An application for the subject equipment has been previously filed with (TCB/ Agency name) on (date). 1.7. Product Name(s) / Model Number(s):					
Note" Industry Canada do not allow the use of wildcards in the model number so list all variants QC250					

LINKS TO RULE PARTS / EQUIPMENT TYPES

FCC Equipment Class List.

Industry Canada radio classes

I, the applicant (or authorized agent) identified below, state that, to the best of my knowledge, the information contained within this application form is correct.

Name/Title: David W. Bare, Chief Engineer Company Name: NTS - Silicon Valley

Date September 8, 2014

[FCC ID: ZKSQC250A] [IC: 9849A-QC250A]

Section 2A. FCC Certification Details				
	tion Select only one	_		
	☐ Class 2 Permissive Change	☐ Change in ID, original FCC ID:		
	al: Not Applicable			
application pur	rsuant to 47 CFR 0.459 of the FCC rules?		⊠ Yes □ No	
	ication include a request for temporary co CFR 0.459 of the FCC rules? Expiration of		☐ Yes No	
	Other Equipment/Applications			
=	ent a composite device subject to an addition	onal equipment authorization?	☐ Yes ⊠ No	
	oment operate with, or is it marketed with,	another device that requires equipment	☐ Yes ⊠ No	
authorization?	na status for all December	Filing Otatus		
of the rel	ng statues for all <u>Description</u> ated applications	<u>Filing Status</u> ↓	FCC ID	
(If more than	4, please include	.		
information	in the application	<u>\\ \</u>		
If there is a relate	cover letter)	nber here and provide all associated documents	including a copy of	
	FCC's response(s) with the application. K		, including a copy of	
	Industry Canada Certification	n Details		
	tion Select only one			
New Certifica		e Listing		
	ation include a request for confidentiality?		⊠ Yes □ No	
		la recommends that you provide a letter from the	e Canadian Contact	
	e: AetherWind Techniologies Inc.	o avoid delays in having the REL updated)		
Full Address:	Unit #1, 306 Tait McKenzie Drive	Contact Name: Todd Gallagher		
	Almonte, Ontario, K0A 1A0 Canada	Email Address: tgallagher@aetherwind	ca	
		Telephone 613-461-0084		
		Number: Fax Number: 613-461-0462		
Canadian Rep	Canadian Representative Canadian Company Number: 4858A (if known, not mandatory)			
Manufacturer's	Contact Details			
Company Name	e:			
Full Address:		Contact Name: Email Address:		
		Telephone		
		Number:		
		Fax Number:		
	nufacturer's Canadian Company Number:	(if known, not mandatory	varida a sanu af tha	
☐ Manufacturing Facility Quality Assurance (e.g. registration against ISO/IEC 9001) – if checked please provide a copy of the certificate or similar evidence.				
Test Report Number(s) and Date(s): R95154 dated September 11, 2014 IC OATS Number(s): 2845B-5 and 2845B-7				
3.2. IC Radio Equipment Type Select the appropriate equipment type(s).				
Spread Spectrum/Digital Device (902-928 MHz) , , , , , ,				
Note The pull-down lists above do not contain the complete list of allowed product types. The complete list can be found on the				
Industry Canada Certification and Engineering Bureau web page www.ic.gc.ca/certification. If your product falls under one or				
	gories not included in the pull-down menu		,	
	Interface Specifications – Please compagnized to be listed on Industry Canada's T	blete if applicable Telecommunication equipment List (TEL) then th	ie regietration must	
		io Equipment List when we upload the equipme		
	provide a copy of the DC-01 declaration a		,	
TE Category Nu	TE Category Number: Select from list, Select from list, REN:			
Interface Code(s): Select from list , Select from list , Select from list				
Note – TE categories listed do not represent all possible categories, if your product falls in another category list here:				

Section 3. Equipment Specifications / Test Report Cover Sheet 3.1. Description of Product as it is Marketed (this will appear on the FCC grant) Collision Avoidance System List of operational features: List of accessories with which the device was tested:

The tables below are set up to allow entry multiple frequency bands per FCC rule part and/or RSS standard. Please use a separate table for each rule part / Equipment Class / RSS standard and do not mix rule parts/standards within a table.

US Standards: FCC Rule Part(s):	·			1	
FCC Equipment Class:					
Canadian RSS Standard:	DSS (Only select one equipment class per table) RSS 210 Issue 8				
Mode of operation:	1100 210 13306 0				
Type(s) of Modulation:	FHSS with GFSK				
Gain of Antenna(s):	3 dBi				
Frequency Range (MHz):	908.0 to 927.6	to	to	to	
RF Power (W) or Field Strength:	0.02 W (conducted)	to	to	to	
Freq Tolerance (%, Hz or ppm):	` '	nnm	nnm	nnm	
Emission Designator: ¹	ppm 206KF1D	ppm	ppm	ppm	
Measured Bandwidth:	206 kHz 20dB				
Necessary Bandwidth (if different):					
Microprocessor Model Number(s):	54 0 ID)//				
Transmitter Spurious (worst case) ² :	51.2 dBuV/m at 3 m	at m	at m	at m	
Receiver Spurious (worst case):	at m	at m	at m	at m	
US Standards: FCC Rule Part(s):					
FCC Equipment Class:					
Canadian RSS Standard:	Issue				
Mode of operation:	10000				
Type(s) of Modulation:					
Gain of Antenna(s):					
Frequency Range (MHz):	to	to	to	to	
RF Power (W) or Field Strength:					
Freq Tolerance (%, Hz or ppm):	ppm	ppm	ppm	ppm	
Emission Designator:	I I	I I	r r		
Measured Bandwidth:					
Necessary Bandwidth (if different):					
Microprocessor Model Number(s):					
Transmitter Spurious (worst case):	at m	at m	at m	at m	
Receiver Spurious (worst case):	at m	at m	at m	at m	
resource of another (more trade).	<u>α.</u>	<u>α.</u>	<u> </u>	Q.(
US Standards: FCC Rule Part(s):					
FCC Equipment Class:					
Canadian RSS Standard:	Issue				
Mode of operation:					
Type(s) of Modulation:					
Gain of Antenna(s):					
Frequency Range (MHz):	to	to	to	to	
RF Power (W) or Field Strength:					
Freq Tolerance (%, Hz or ppm):	ppm	ppm	ppm	ppm	
· · · · - · · · · · · · · · · · · ·	LL	LL:::	rr	LL	

m

at

m

m

Emission Designator: Measured Bandwidth:

Necessary Bandwidth (if different): Microprocessor Model Number(s): Transmitter Spurious (worst case):

Receiver Spurious (worst case):

Designator in accordance with FCC 47 CFR 2.201/2.202; TRC 43. For FCC-only applications this information is only required for licensed devices. It is required for all Canadian applications.
 It is possible to enter a single worst-case value for the transmitter and receiver spurious emissions in one cell only and that

It is possible to enter a single worst-case value for the transmitter and receiver spurious emissions in one cell only and that value will then be used for all of the individual frequency bands/modulations.

[FCC ID: ZKSQC250A] [IC: 9849A-QC250A]

US Standards: FCC Rule Part(s):				
FCC Equipment Class:				
Canadian RSS Standard:	Issue			
Mode of operation:				
Type(s) of Modulation:				
Gain of Antenna(s):				
Frequency Range (MHz):	to	to	to	to
RF Power (W) or Field Strength:				
Freq Tolerance (%, Hz or ppm):	ppm	ppm	ppm	ppm
Emission Designator:	PP···	P P · · · ·	PP	
Measured Bandwidth:				
Necessary Bandwidth (if different):				
Microprocessor Model Number(s):				
Transmitter Spurious (worst case):	at m	at m	at m	at m
Receiver Spurious (worst case):	at m	at m	at m	at m
receiver opunous (worst case).	at III	at III	αι ΙΙΙ	αι ΙΙΙ
US Standards: FCC Rule Part(s):				
FCC Equipment Class:				
Canadian RSS Standard:	Issue			
Mode of operation:				
Type(s) of Modulation:				
Gain of Antenna(s):			"	
Frequency Range (MHz):	to	to	to	to
RF Power (W) or Field Strength:				
Freq Tolerance (%, Hz or ppm):	ppm	ppm	ppm	ppm
Emission Designator:	ррпп	PPIII	ppiii	PP····
Measured Bandwidth:				
Necessary Bandwidth (if different):				
Microprocessor Model Number(s):				
Transmitter Spurious (worst case):	at m	at m	at m	at m
Receiver Spurious (worst case):	at m at m	at m at m	at m at m	at m at m
Receiver Spurious (worst case).	al III	al III	al III	al III
US Standards: FCC Rule Part(s):				
FCC Equipment Class:				
Canadian RSS Standard:	Issue			
Mode of operation:				
Type(s) of Modulation:				
Gain of Antenna(s):				
Frequency Range (MHz):	to	to	to	to
RF Power (W) or Field Strength:				
Freq Tolerance (%, Hz or ppm):	ppm	ppm	ppm	ppm
Emission Designator:	ρριιι	ρριτι	ррііі	ррш
Measured Bandwidth:				
Necessary Bandwidth (if different):				
Microprocessor Model Number(s):				
Transmitter Spurious (worst case):	Ct m	ct m	C+ m	ct m
	at m	at m	at m	at m
Receiver Spurious (worst case):	at m	at m	at m	at m

To be completed by the Testing Laboratories authorized signatory:

DECLARATION OF COMPLIANCE: I declare that the testing was performed or supervised by me; that the test measurements were made in accordance with the above-mentioned departmental standard(s), and that the radio equipment identified in this application has been subject to all the applicable test conditions specified in the departmental standards and all of the requirements of the standards have been met.

Name/Title: David W. Bare, Chief Engineer Test Laboratory Name: NTS - Silicon Valley

Date September 8, 2014