MPE Calculation		Model:	XCM Capsule	Test Number	: 210419				
All	MPE Calculator				·				
S -	I'll E Calculator	*		on 174 power added to the unternal g	um m ubi.				
Transfer Open Open Open Open Open Open Open Open									
Transmitt Organ Property   1,000   1				nW) 0.0					
Capab   Power for 100   day   Cabachan   Power (Wins)   0.00   Alles   2.7   2.00   1.00									
The Prospecting OMHz	Output Power for %	duty Cycle operation (Watts)		100 0.000		Antenna Gain (dBi)	1		
Cable Loss (B) 0 Adjused Power (Blm) 17.98 Antenue Cain (Bibb) 1.00   Calculated ERF (mm) 0.020   Adjused Power (Blm) 17.98   Antenue Cain (Nuncico) 1.26   Calculated ERF (mm) 0.020   Rataset (ERF) mbm 1.65.79   Power death, (S) million = 1.00		Output Power for 100%	duty Cycle operation (W	atts) 0.000	Ante	enna Gain (Numeric)	1.26		
Cable Loss (8b)	Tx Frequency (MHz)	433	Calcualtion power (W	atts) 0.000	dBd + 2.17 = dBi	dBi to dBd	2.2		
Calcaded EBP (cms) 0.012						Antenna Gain (dBd)	-1.17		
Calabried ERP (mm) 1012	Cable Loss (dB)	0.0 Adjusted Power		Bm) -17.98	Antenna minus cable (dBi)		1.00		
Catalog CREP (cms) 0.00									
Property clearly (S) auto-a   ERP									
Power density (S) milycen   EBRP (mily)		Calculated EIRF (IIIW)	0.020						
Cocupational Linit		D 1 : (0)							
		Power density (S) mW/				, ,			
Occupational Limit			4 p 1 2						
Property (MHz)		r (cm) EIRP (mW)							
Property (MHz)									
Solution					1				
Cerear Public Limit									
New Comparison   1,500-10,000   5	50								
Cecupational Limit									
Occupational Linit   Wind   Et and in frequency radiation exposure laries per RSS-102	1		1,500-10,000	5	1				
16.7   W/m²   Frequency (MHz)   Occupational Linia (W/m²)   Public Linia (W/m²)   Occupational Linia (W/m²)   Public Linia (W/m²)	10	W/m²							
16.7   W/m²   Frequency (MHz)   Occupational Linia (W/m²)   Public Linia (W/m²)   Occupational Linia (W/m²)   Public Linia (W/m²)									
16.7   W/m²   Frequency (MHz)   Occupational Linia (W/m²)   Public Linia (W/m²)   Occupational Linia (W/m²)   Public Linia (W/m²)		Occupational Limit							
Frequency (MHz)	0.6455£ <sup>0.5</sup>		IC ra	lio frequency radiation exposure limits	per RSS-102				
General Public Limit									
1002619   Maria   Ma	10.7				1 done Limit (W/III )				
1.291   1.29	0.02610.60.6834			,					
Summary   Standalone MPE Calculations and Summary   Summary   Standalone MPE Calculations and Summary   Standalone MPE Calculations and Summary   Summaries   Summar				30	1 201				
Fe   Transmit Prequency (MHz)	1.7	W/m							
Finansini Frequency (MHz)				50					
P <sub>T</sub> = Power Input to Antenna (mW)  Duty cycle (percentage of operation)  Duty cycle (percentage of operation)  P <sub>S</sub> = Adjusted Power due to Duty cycle or Cable Lass (mW)  Q <sub>S</sub> = Nower Density of device at 2Mm (W/m²)  S <sub>30</sub> = Power Density of device at 2Mm (W/m²)  S <sub>30</sub> = Power Density of device at 2Mm (W/m²)  S <sub>30</sub> = Power Density of device at 2Mm (W/m²)  S <sub>30</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>30</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>30</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>4</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>5</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>6</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>7</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>7</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>7</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the device at 2Mm (W/m²)  S <sub>8</sub> = Power Density of the devic			0,000-13,000	30	10				
Duty cycle (percentage of operation)	f = Transmit Frequecny (MHz	:)			f (MHz) =	433	MHz		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	P <sub>T</sub> = Power Input to Antenna	(mW)			P <sub>T</sub> (mW) =	0.0159	mW		
	Duty cycle (percentage of ope	eration)			% =	100	%		
	P <sub>A</sub> = Adjusted Power due to I	Duty cycle or Cable Loss (mW)			$P_{A}(mW) =$	0.02	mW		
	G <sub>N</sub> = Numeric Gain of the Ant	enna			GN (numeric) =	1.26	numeric		
$S_{c} = Power Density Limit (W/m^{2}) \\ R_{c} = Minimum distance to the Radiating Benent for Compliance (cm) \\ R_{c} = Minimum distance to the Radiating Benent for Compliance (cm) \\ R_{c} = V/P_{c}G_{c}Aes_{c}) \\ S_{c} = Power Density of the device at the Compliance Distance R_{c}(W/m^{2}) S_{c}(P_{A}G_{N})/(4\pi R_{c})^{2} S_{c}(W/m^{2}) = 1.66 W/m^{2} S_{c}(W/m^{2}) = 1.66 S_{c}$	S <sub>20</sub> = Power Density of device	e at 20cm (mW/m <sup>2</sup> )		$S_{20}=(P_AG_N)/(4\pi R_{20})^2$	$S_{20} (mW/m^2) =$	0.00	mW/m <sup>2</sup>		
R <sub>C</sub> = Minimum distance to the Radiating Element for Compliance (m)/r S <sub>C</sub> = Power Density of the device at the Compliance Distance R <sub>C</sub> (W/m²) $S_{C} = (P_AG_N)/(4\pi R_C)^2$ $S_C = (W/m²) = 1.66$ (W/m²) $S_C = (P_AG_N)/(4\pi R_C)^2$ $S_C = (W/m²) = 1.66$ (W/m²) $S_C = (W/m²) =$	S <sub>20</sub> = Power Density of device	e at 20cm (W/m <sup>2</sup> )		$S_{20}=(P_AG_N)/(4\pi R_{20})^2$	$S_{20} (W/m^2) =$				
	S <sub>L</sub> = Power Density Limit (W/	'm²)			$S_L (W/m^2)=$	1.659	W/m <sup>2</sup>		
R20	$R_C = Minimum distance to the$	Radiating Element for Compliance	e (cm)	$R_C = \sqrt{(P_A G_N / 4\pi S_L)}$	$R_{C}$ (cm) =	0.1	cm		
For Complaince with Canada General Population Limits, User Manual must indicate a minimum seperation distance of   0.1 cm   0.00 Meters   0.	S <sub>C</sub> = Power Density of the dev	vice at the Compliance Distance Ro	(W/m <sup>2</sup> )	$S_C = (P_A G_N)/(4\pi R_C)^2$	$S_C(W/m^2) =$	1.66	W/m <sup>2</sup>		
Summary: Standalone MPE Calculations and Summary   Summary: Standalone MPE Calculations and Summary   Power Total (mW)   Antenna Gain (numeric)   S <sub>L</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   R <sub>C</sub> (cm)   R <sub>C</sub> (cm)   R <sub>C</sub> (cm)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   R <sub>C</sub> (cm)   R <sub>C</sub> (	R <sub>20</sub> = 20cm				R20=	20	cm		
Summary: Standalone MPE Calculations and Summary   Summary: Standalone MPE Calculations and Summary   Power Total (mW)   Antenna Gain (numeric)   S <sub>L</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   S <sub>20</sub> (W/m²)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   R <sub>C</sub> (cm)   R <sub>C</sub> (cm)   R <sub>C</sub> (cm)   R <sub>C</sub> (cm)   S <sub>C</sub> (W/m²)   R <sub>C</sub> (cm)   R <sub>C</sub> (									
Summary: Standalone MPE Calculations and Summary   Summary: Standalone MPE Calculations and Summary   Summary: Standalone MPE Calculations and Summary   Sum of Power Ratios at 20cm (Tx1 + Tx2)   S									
Band (MHZ)		Or in N	Access for Complaince Wi	n Canada Ocherai Population Limits, a	manum seperation distance of	0.00	IVICICIS		
Band (MHZ)	Summary: Standalone MP	PE Calculations and Summary							
A33   100   433   0   1.26   1.659   0.00   0.1   1.66			Tx Frequeny (MHz)	Power Total (mW)	Antenna Gain (numeric)	$S_L (W/m^2)$	S <sub>20</sub> (W/m <sup>2</sup> )	R <sub>C</sub> (cm)	S <sub>C</sub> (W/m
24,025   100   24025   2.44   1.26   1.602   0.01   1.2   1.60	433	100	433	0	1.26		0.00	0.1	1.66
24,025   100   24025   2.44   1.26   1.602   0.01   1.2   1.60	D 1	m.n				ar are	gao c	DG : :	
Simbutaneous MPE Calculation									
Transmitter 1         Transmitter 2           Tx Frequeny (MHz)         433         24025           S <sub>20</sub> (W/m²)         0.00         0.01           S <sub>L</sub> (W/m²)         1.659         1.602           Power Ratio (S <sub>L</sub> / S <sub>20</sub> )         0.000         0.004           Sum of Power Ratios at 20cm (Tx1 + Tx2)         0.004	24,025	100	24025	2.44	1.20	1.002	0.01	1.2	1.00
Transmitter 1         Transmitter 2           Tx Frequeny (MHz)         433         24025           S <sub>20</sub> (W/m²)         0.00         0.01           S <sub>L</sub> (W/m²)         1.659         1.602           Power Ratio (S <sub>L</sub> / S <sub>20</sub> )         0.000         0.004           Sum of Power Ratios at 20cm (Tx1 + Tx2)         0.004		Simlutaneous MPE Calculati	on						
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$									
S <sub>L</sub> (W/m²)     1.659     1.602       Power Ratios (S <sub>L</sub> /S <sub>20</sub> )     0.000     0.004       Sum of Power Ratios at 20cm (Tx1 + Tx2)     0.004	Tx Frequeny (MHz)			025					
Power Ratio (S <sub>L</sub> / S <sub>20</sub> ) 0.000 0.004 0.004 0.004 0.004 0.004	$S_{20} (W/m^2)$	0.00		0.01					
Sum of Power Ratios at 20cm (Tx1 + Tx2) 0.004	$S_L (W/m^2)$	1.659	1	602					
			0	004					
			0	.004					

Rogers Labs, Inc. 4405 West 259th Terrace Louisburg, KS 66053

Revision 1

Phone/Fax: (913) 837-3214

EiKO Global, LLC

PMN : Xi-Fi PIR Capsule

HVIN : XCM1 Test : 210419 Test to: CFR47 15C, RSS-210

File: XCM1 RFExmp r1

SN's: ENG1, ENG2 FCC ID: 2AZIS-XCM1

IC: 27132-XCM1

Date: November 17, 2021

Page 1 of 2

	Model:	XCM1		Test Number	210419				
MPE Calculator	RF Exposure uses EIRP for calculation. EIRP is based on TX power added to the antenna gain in dBi.								
	dBi = dB gain compared to a	n isotropic radiator.							
	S = power density in mW/cm								
		insmitter Output pow	ver (mW)	2.4					
		ransmitter Output po							
Output Power for %	duty Cycle operation (Watts)		100			Antenna Gain (dBi)	1		
	Output Power for 100%	duty Cycle operation	n (Watts)	0.002	Ante	enna Gain (Numeric)	1.26		
Tx Frequency (MHz)	24,025.00	Calcualtion power (Watts)		0.002	dBd + 2.17 = dBi	dBi to dBd	2.2		
						Antenna Gain (dBd)	-1.17		
Cable Loss (dB)	0.0	Adjusted Pow	er (dBm)	3.87	Anten	na minus cable (dBi)	1.00		
		•			Antenna Gain (Numeric)		1.26		
	Calculated ERP (mw)	w) 1.863			EIRP = Po(dBM) + Gain (dB)				
	Calculated EIRP (mw)	Calculated EIRP (mw) 3.070			Radiated (EIRP) dBn		4.871		
		EIRP			ERP = EIRP - 2				
	Power density (S) mW/				F	Radiated (ERP) dBm	2.701		
		4 p r^2							
		-							
	r (cm) EIRP (mW)								
	<u> </u>								
	0	P.C.	C modic 4	requency radiation exposure limits p	1 1210				
	Occupational Limit								
5		Frequency (M	Hz)	Occupational Limit (mW/cm <sup>2</sup> )	Public Limit (mW/cm <sup>2</sup> )				
50		30-300		1	0.2				
	General Public Limit	300-1,500		f/300	f/1500				
1	mW/cm <sup>2</sup>	1,500-100,0	00	5	1				
10	W/m <sup>2</sup>								
	Occupational Limit								
3.33 x 10 <sup>-4</sup> j	f W/m <sup>2</sup>	IC	radio free	quency radiation exposure limits per	RSS-102				
8.0		Frequency (MHz)		Occupational Limit (W/m²)	Public Limit (W/m <sup>2</sup> )				
	General Public Limit	100-6,000		$0.6455 f^{0.5}$	Tuone Emine (**/****)				
6.67x10 <sup>-5</sup> j	W/m <sup>2</sup>	6,000-15,00		50					
				30	1 201			_	
1.6	W/m <sup>2</sup>	48-300			1.291				
		300-6,000			$0.02619f^{0.6834}$				
		6,000-15,00		50	10				
		15,000-30,00		3.33 x 10 <sup>-4</sup> f	6.67 x 10 <sup>-5</sup> f				
		Note: f is in N	1Hz						
Transmit Frequenny (MHz					f (MHz) =	24025			
P <sub>T</sub> = Power Input to Antenna (mW)					$P_{T}$ (mW) =	2.4385			
Duty cycle (percentage of operation)					% =	100	%		
P <sub>A</sub> = Adjusted Power due to Duty cycle or Cable Loss (mW)					$P_{A}(mW) =$	2.44	mW		
G <sub>N</sub> = Numeric Gain of the Antenna					GN (numeric) =	1.26	numeric		
$S_{20}$ = Power Density of device at $20 \text{cm} (\text{mW/m}^2)$				$S_{20}=(P_AG_N)/(4\pi R_{20})^2$	$S_{20} (mW/m^2) =$	0.00	mW/m <sup>2</sup>		
20 = Power Density of device	e at 20cm (W/m <sup>2</sup> )			$S_{20}=(P_AG_N)/(4\pi R_{20})^2$	$S_{20} (W/m^2) =$	0.01	W/m <sup>2</sup>		
= Power Density Limit (W/				20 (A-1) (20)	$S_{L}(W/m^2)=$		W/m <sup>2</sup>		
	e Radiating Element for Compliance	(am)		$R_C = \sqrt{(P_A G_N / 4\pi S_L)}$	$R_{C}$ (cm) =		cm	-	
								-	
	vice at the Compliance Distance Ro	(W/m <sup>2</sup> )		$S_C = (P_A G_N)/(4\pi R_C)^2$	$S_C (W/m^2) =$		W/m <sup>2</sup>		
t <sub>20</sub> = 20cm					R20=	20	cm		
	· · · · ·			** **					
				, User Manual must indicate a minii			cm		
	Or in Meter	num seperation distance of	0.01	Meters					

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Revision 1

EiKO Global, LLC

PMN : Xi-Fi PIR Capsule

HVIN : XCM1 Test : 210419

Test to: CFR47 15C, RSS-210 File: XCM1 RFExmp r1

SN's: ENG1, ENG2 FCC ID: 2AZIS-XCM1 IC: 27132-XCM1

Date: November 17, 2021

Page 2 of 2