

9.4 IC Statement: English

This radio transmitter SC24980-SC4210E245 has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

1. Omnidirectional antenna, Silvus P/N A0VD230515, maximum antenna gain 2.1 dBi, 50 ohm
2. Omnidirectional antenna, Silvus P/N A0V4S235, maximum antenna gain 4dBi, 50 ohm

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.*
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.*

9.5 IC Statement: French

Le présent émetteur radio [identifier le dispositif par son numéro de certification d'ISED] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenna énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué, pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

1. Omnidirectionnel d'onde, Silvus P/N A0VD230515, le gain max 2.1 dBi, 50 ohm
2. Omnidirectionnel d'onde, Silvus P/N A0V4S235, le gain max 4 dBi, 50 ohm

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

- (1) L'appareil ne doit pas produire de brouillage;*
- (2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.*

9.6 Radiation Exposure Statement: English

Radiation Exposure Statement:

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 32 cm between the radiator and your body.

9.7 Radiation Exposure Statement: French

Déclaration d'exposition aux radiations

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 32 cm de distance entre la source de rayonnement et votre corps.

10 MIC Japan Notice

10.1 ID: 211-210701

Silvus model #: SC4210P-245-O. Note that the SC4210P is a subset of the generic SC4200P, the "1" in the model # indicates it is a 1-watt maximum output power product or if lower the limits found by the MIC testing.

Equipment Class: 2.4GHz Band for Unmanned Mobile Image Transfer System

The following parameters must be used to be compliant to the appropriate MIC requirements:

Antennas:

3dBi Omni Antennas (Silvus ABV3S235)

2.15dBi Omni Antennas (C-Astral OMNI2G4)

3dBi Omni Antennas (Silvus AO2D3S235F-SF)

3dBi Omni Antennas (Silvus AOM3S240F-SF)

1dBi Omni Antennas (Silvus AOV2D235515S-TM)

Bandwidth: 4.5MHz

Maximum 4.5MHz Bandwidth Output Power @ Frequency #1: 910mW @ 2486MHz

Maximum 4.5MHz Bandwidth Output Power @ Frequency #2: 870mW @ 2491MHz

Bandwidth: 9MHz

Maximum 9MHz Bandwidth Output Power @ Frequency #1: 880mW @ 2489MHz

Modulation and Coding Schemes tested: MCS0 to MCS15

10.2 ID: 011-210045

Silvus model #: SC4210P-576-O. Note that the SC4210P is a subset of the generic SC4200P, the "1" in the model # indicates it is a 1-watt maximum output power product or if lower the limits found by the MIC testing.

Equipment Class: 5.7GHz Band for Unmanned Mobile Image Transmission System

The following parameters must be used to be compliant to the appropriate MIC requirements:

Antennas:

2.3dBi Omni Antennas (Silvus AOV2D235515S-TM, also Southwest Antenna 1001-253)

2.15dBi Omni Antennas (Silvus AOV2S520G-TM, also Southwest Antenna 1001-128)

2.15dBi Omni Antennas (C-Astral OMNI5G7)

3dBi Omni Antennas (Silvus AO2D3S)

3dBi Omni Antennas (Silvus AOV3T245515575-TM, also L-Com HG2458RD-TM)

Bandwidth: 4.5MHz

Maximum 4.5MHz Bandwidth Output Power @ Frequency Low: 29.78dBm @ 5625.5MHz

Maximum 4.5MHz Bandwidth Output Power @ Frequency Mid: 29.8dBm @ 5702.5MHz

Maximum 4.5MHz Bandwidth Output Power @ Frequency High: 29.76dBm @ 5752.5MHz

Bandwidth: 9MHz

Maximum 9MHz Bandwidth Output Power @ Frequency Low: 29.72dBm @ 5655MHz

Maximum 9MHz Bandwidth Output Power @ Frequency Mid: 29.82dBm @ 5695MHz

Maximum 9MHz Bandwidth Output Power @ Frequency Low: 29.82dBm @ 5750MHz

Bandwidth: 19.7MHz

Maximum 19.7MHz Bandwidth Output Power @ Frequency Low: 29.6dBm @ 5660MHz

Maximum 19.7MHz Bandwidth Output Power @ Frequency Mid: 29.74dBm @ 5700MHz

Maximum 19.7MHz Bandwidth Output Power @ Frequency High: 29.66dBm @ 5745MHz

Modulation and Coding Schemes tested: MCS0 to MCS15

10.3 Software License

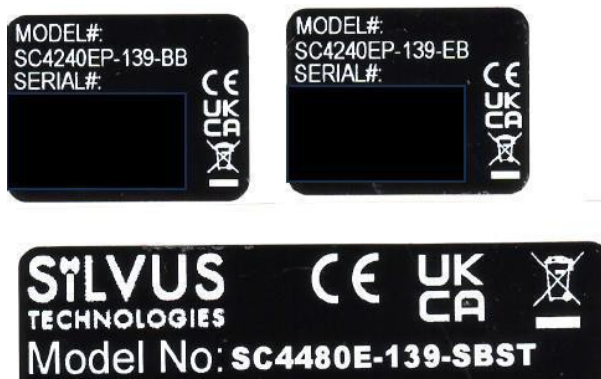
A Software License is used to ensure only parameters and limits that are allowed by the MIC certificates shown in sections 16.1 & 16.2 can be selected. These parameters include Frequency, Output Power, Modulation and Bandwidth.

10.4 Firmware Encryption

The details of our Firmware Encryption are considered proprietary and are discussed in depth in the submitted document SC4210P-576-O Circuit Description v1.3 section 1.5. Also described is the method to ensure only Silvus released firmware and Software License can be loaded on the product. This will ensure only the parameters and limits that are allowed by the MIC certificate shown in section 16.1 & 16.2 can be selected.

11 UKCA Markings

11.1 (-139 Models)



The following Silvus Technologies models are declared to conform to UKCA Mark requirements:

Silvus P/N: SC4240EP-139-BB, SC4240EP-139-EB, SC4480E-139-SBST

Relevant standards:

- EN 302 064 V2.1.1, Wireless Video Links, Harmonized Standard
- EN 301 489-1 V2.2.0, EMC, Common Technical Requirements
- EN 301 489-28 V1.1.1, EMC, Specific conditions for wireless digital video links
- EN 62368-1, Product Safety Standard

Frequency range: 1350-1440 MHz

Maximum RF power: In compliance with EN302-064, for Tx BW=20MHz, the output power must not exceed 30dBm/1W per channel.

Antenna: 2.1dBi Omni Antennas (AOV2S192)

Cable: Silvus cable assembly (SC22-PRICBL02-6)

External Bandpass Filter: Microwave Filter Co. model 3813 (a filter of equivalent performance may also be used, contact Silvus Technologies customer support for more information)

AC Adapter (if used): EDAC Power Electronics EA10523C-120 (this adapter is approved for indoor use only) (this adapter was certified by the manufacturer to IEC 60950-1)

External DC supply: If the customer provides DC power from their own source, the supply should be fused for a 5-amp circuit.

Safe Working Distance:

Maintain minimum safe working distance between radios & users by models below:

- SC42xx-139, >38cm
- SC44xx-139, >76cm

For more details, refer to TUV report no. 7217985B, "Radio Frequency Exposure Verification of the Silvus Technologies Inc. StreamCaster SC4240EP-139 and SC4480E-139 Tactical MIMO Radios. The CE Mark Technical File is available upon request for inspection.

To satisfy RF exposure requirements, this device and its antennas must operate with the separation distances listed above from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with RED RF Exposure requirements.

See restrictions mentioned in ERC Recommendation 25-10, Table 7-C2, for guidance of restrictions applicable to specific countries.

Table 7-C2: additional information regarding the national conditions for the identified tuning ranges for video PMSE applications - Band C2

Frequency Band	Country	Implementation	Conditions/remarks
C2 2025-2110 MHz	AUT	L*	Max. 10MHz Channels; max. 20dBW eirp; 2070-2090 MHz: Restricted to Broadcasters only. 2090-2110 MHz: Restricted to fire brigades and private users
	AZE	Y*	On a secondary basis
	BIH	L	PBS old MW link systems for PMSE. Military use in 2025-2110 MHz
	BUL	Y	ECC Report 219. Available for Cordless Cameras, Portable video links and Mobile video links
	CZE	Y*	The band may be used in the coordination with the Ministry of Defence of the Czech Republic. https://www.ctu.eu/sites/default/files/obsah/ctu/rsup-p_06_09-2014-07_en.pdf , new version is available only in czech https://www.ctu.cz/sites/default/files/obsah/ctu/vyzva-k-uplatneni-priporu-k-navrhu-opatreni-obecne-povahy-casti-planu-vyuziti-radioveho-spektra-c-pv-p/6xx.2017-yy-pro-kmitove-pasmo-1900-2200-mhz/obrazky/pv-p6-2017.pdf
	D	N	Deviations from the specifications in the Frequency Plan (FreqP) could be permitted for a limited time in accordance with §58 TKG. This is provided that the frequency usages indicated in the Frequency Ordinance (FreqV) and the Frequency Plan are not adversely affected (for more details see: https://www.bundesnetzagentur.de/ctn_1412/DE/Sachgebiete/Telekommunikation/Unternehmen_Institutionen/Frequenzen/SpezielleAnwendungen/Kurzzeitteilungen/kurzzeitteilungen-node.html)
	DNK	Y*	
	E	N	Band not available
	EST	L*	2075.25-2110 MHz SAP/SAB. See Regulation of Ministry of Communication and Economical Affairs 21.05.2013 No 35. Otherwise governmental use.
	F	L*	Temporary licenses, e.i.r.p. max = 10 dBW. Use of 10 MHz bandwidth centered on 2055 MHz and 2095 MHz for ground-to-ground link and 10 MHz bandwidth centered on 2065 MHz and 2105 MHz for air-to-ground link. Coordination required between assigning authorities (la Défense and Space) regarding the use of the other available bands in order to avoid harmful interference. ARCEP Decision 2016-1130
	FIN	L*	Cordless cameras, temporary use on a case- by-case basis. Standard EN 302064. Other use includes military use and space operation
	G	Y*	Technology and application neutral but typically used for wireless cameras, typically licensed at 100 mW e.i.r.p.
	GEO	L*	
	GRC	L*	Cordless Cameras. Portable/Mobile video links. 2087.5- 2108.5 MHz : not available (exclusive use by security services)
	HNG	N	Band not available (governmental use). However, the band may be used for short-term PMSE use if the user demand makes it necessary at certain occasions like main events. In this case the authority handles the requests on a case-by-case basis and if the frequency use can be authorised the users receive an individual license
	HOL	L*	2070-2110 MHz for ENG-OB only
Possible implementation status: Y = the whole band is available for PMSE L = Limited availability N = the band is not available for PMSE * - Individual licence may be required I – restrictions apply (e.g. geographical restrictions)			

Annex A UK DECLARATION OF CONFORMITY

NOTE – THIS IS NOT A TEMPLATE. It is the responsibility of the manufacturer and / or the authorised representative to produce the Declaration of Conformity with suitable content. This is purely for consideration of what should be included and should not be used as a template. Other UK regulations if applicable may be additionally required on the Declaration of Conformity or Declaration of Conformity dossier.

We, **Silvus Technologies Inc.**

(Manufacturer's name)

Of

10990 Wilshire Blvd, Los Angeles, CA 90024

(Address)

Declare under our sole responsibility that the product:

StreamCaster:

SC4240EP-139-BB, SC4240EP-139-EB, SC4480E-139-SBST

(Detailed description of product including batch or serial number, name, type, model, and, where necessary, a colour image; where applicable a description of accessories and components, and software, which allow the radio equipment to operate as intended and covered by the declaration of conformity)

to which this declaration relates, is in conformity with the following designated standards and/or technical specifications

(References to standards/specifications must be listed with their identification number and version and, where applicable, date of issue)

Regulation 6(1)(a) [Health & Safety]: EN 62368-1:2014, EN 62311:2008

Regulation 6(1)(b) [EMC]: EN 301 489-1 V2.2.0 , EN 301 489 -28 V1.1.1

Regulation 6(2) [Spectrum Usage]: EN 302 064 V2.1.1

Regulation 6A [Additional essential requirements]:

We hereby declare that the above-named product is in conformity to the requirements of the Radio Equipment Regulations 2017 with the involvement of the following UK Market Conformity Assessment Body under Schedule 3 Module B of the Regulation. (Where the Certification Body Type Examination Certificate / involvement is only for limited Regulations, i.e. Regulation 6(2) only this should be explicitly stated here):

TUV SUD America Inc, 401 Edgewater Place #500, Wakefield, MA, 01880, USA

Approved Body:

1929

Type Examination
Certificate No:

**UKCB2 002138
0006 Rev. 00**

The technical documentation relevant to the above equipment will be held at:
Silvus Technologies Inc. 10990 Wilshire Blvd, Los Angeles, CA 90024

(Name and address of the UK Authorised Representative, if applicable and formally appointed by the manufacturer)
11/17/2023

(Signature of authorised person)
Grant Denoon

(Date)
San Diego, CA, USA

(Name of authorised person)
Director of RF Engineering

(Place of issue; e.g. City/town, and Country)

(Job title)



UK Type Examination Certificate

Certificate No: UKCB2 002138 0006 Rev. 00

Certificate Holder: Silvus Technologies, Inc
10990 Wilshire Blvd., Suite #1500
Los Angeles CA 90024
USA

Product Type: Base station
High-throughput wireless MIMO OFDM transceiver, for digital
data and digitized video

Model(s):
SC4240EP-139-BB
SC4240EP-139-EB
SC4480E-139-SBST

We, as UK Approved Body number 1929, have examined the technical documentation and supporting evidence for the above listed equipment and found it to comply with the requirements of Schedule 3 Module B of The Radio Equipment Regulations 2017 as amended, in relation to the following essential requirements covered by the examination

Essential Requirements: Regulation 6(2) in respect to the Radio Spectrum

This is based upon examination of the following Technical Data file. Please refer to the Annex for further technical details.

Technical Documentation: SC4200-139 SC4400-139 TCF

Valid from: 2023-11-10


(Evan Gould)

Total pages: info 2

The certificate has been issued in accordance with the Certification Regulations of TUV SUD America (Approved Body Number 1929) and constitutes page 1 of the combined Certificate and Annex.

The UKCA mark may be used on the equipment described above subject to the equipment meeting the compliance requirements of all applicable UK Regulations.

The conditions for the validity of this certificate are listed in the Annex.
For further details related to this certification please contact certification.us@tuvsud.com

Issued by TUV SUD America under document number: CB-23-247 i01

TÜV SÜD America, Inc. • 401 Edgewater Place Suite #500 • Wakefield • MA 01880 • USA

TUV®

11.2 (-235467 Models)



The following Silvus Technologies models are declared to conform to UKCA Mark requirements:

Silvus P/N: SC4240EP-235467-BB, SC4240EP-235467-EB, SC4480E-235467-SBST

Relevant standards:

- EN 302 064 V2.1.1, Wireless Video Links, Harmonized Standard
- EN 301 489-1 V2.2.0, EMC, Common Technical Requirements
- EN 301 489-28 V1.1.1, EMC, Specific conditions for wireless digital video links
- EN 62368-1, Product Safety Standard

Frequency range: S band (2200MHz to 2500MHz)
C-1 band (4400MHz to 4940MHz)

Maximum RF power: In compliance with EN302-064, for Tx BW=20MHz:

- For S-band, the output power must not exceed 27dBm/0.5W per channel
- For C-band, the output power must not exceed 24dBm/0.25W per channel

Antenna: 1.8-1.9dBi Dual Bands Omni Antennas (AOV2D235515G) Cable: Silvus cable assembly (SC22-PRICBL02-6)

External Bandpass Filter: Microwave Filter Co. model 3813 (a filter of equivalent performance may also be used, contact Silvus Technologies customer support for more information)

AC Adapter (if used): EDAC Power Electronics EA10523C-120 (this adapter is approved for indoor use only) (this adapter was certified by the manufacturer to IEC 60950-1)

External DC supply: If the customer provides DC power from their own source, the supply should be fused for a 5-amp circuit.

Safe Working Distance:

Maintain minimum safe working distance between radios & users by models below:

- SC42xx-235467, >34cm
- SC44xx-235467, >67cm

For more details, refer to TUV report no. 72171985D, "Radio Frequency Exposure Verification of the Silvus Technologies Inc. StreamCaster SC4240EP-235467 and SC4480E-235467 Tactical MIMO Radios. The CE Mark Technical File is available upon request for inspection.

To satisfy RF exposure requirements, this device and its antennas must operate with the minimum separation distances listed above from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter, except in accordance with RED RF Exposure requirements.

See restrictions mentioned in ERC Recommendation 25-10, Table 7-C2, for guidance of restrictions applicable to specific countries.

Table 7-C2: additional information regarding the national conditions for the identified tuning ranges for video PMSE applications - Band C2

Frequency Band	Country	Implementation	Conditions/remarks
C2 2025-2110 MHz	AUT	L*	Max. 10MHz Channels; max. 20dBW eirp; 2070-2090 MHz: Restricted to Broadcasters only. 2090-2110 MHz: Restricted to fire brigades and private users
	AZE	Y*	On a secondary basis
	BIH	L	PBS old MW link systems for PMSE. Military use in 2025-2110 MHz
	BUL	Y	ECC Report 219. Available for Cordless Cameras, Portable video links and Mobile video links
	CZE	Y*	The band may be used in the coordination with the Ministry of Defence of the Czech Republic. https://www.ctu.eu/sites/default/files/obsah/o-ctu/rsup-p_06_08-2014-07_en.pdf , new version is available only in czech https://www.ctu.cz/sites/default/files/obsah/ctu/vyzva-k-uplatneni-priporu-k-navrhu-opatreni-obecne-povahy-casti-planu-vyuziti-radioveho-spektra-c-pv-p/6xx.2017-yy-pro-kmitoctove-pasmo-1900-2200-mhz/obrazky/pv-p6-2017.pdf
	D	N	Deviations from the specifications in the Frequency Plan (FreqP) could be permitted for a limited time in accordance with §58 TKG. This is provided that the frequency usages indicated in the Frequency Ordinance (FreqV) and the Frequency Plan are not adversely affected (for more details see: https://www.bundesnetzagentur.de/cdn_1412/DE/Sachgebiete/Telekommunikation/Unternehmen_Institutionen/Frequenzen/SpezielleAnwendungen/Kurzzeitteilungen/kurzzeitteilungen-node.html)
	DNK	Y*	
	E	N	Band not available
	EST	L*	2075.25-2110 MHz SAP/SAB. See Regulation of Ministry of Communication and Economical Affairs 21.05.2013 No 35. Otherwise governmental use.
	F	L*	Temporary licenses, e.i.r.p. max = 10 dBW. Use of 10 MHz bandwidth centered on 2055 MHz and 2095 MHz for ground-to-ground link and 10 MHz bandwidth centered on 2065 MHz and 2105 MHz for air-to-ground link. Coordination required between assigning authorities (la Défense and Space) regarding the use of the other available bands in order to avoid harmful interference. ARCEP Decision 2016-1130
	FIN	L*	Cordless cameras, temporary use on a case-by-case basis. Standard EN 302064. Other use includes military use and space operation
	G	Y*	Technology and application neutral but typically used for wireless cameras, typically licensed at 100 mW e.i.r.p.
	GEO	L*	
	GRC	L*	Cordless Cameras. Portable/Mobile video links. 2087.5-2108.5 MHz : not available (exclusive use by security services)
	HNG	N	Band not available (governmental use). However, the band may be used for short-term PMSE use if the user demand makes it necessary at certain occasions like main events. In this case the authority handles the requests on a case-by-case basis and if the frequency use can be authorised the users receive an individual license
	HOL	L*	2070-2110 MHz for ENG-OB only
Possible implementation status: Y = the whole band is available for PMSE L = Limited availability N = the band is not available for PMSE * - Individual licence may be required ! - restrictions apply (e.g. geographical restrictions)			

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We, **Silvus Technologies Inc.**

(Manufacturer's name)

Of

10990 Wilshire Blvd, Los Angeles, CA 90024

(Address)

Declare under our sole responsibility that the product:

StreamCaster:

SC4240EP-235467-BB, SC4240EP-235467-EB, SC4480E-235467-SBST

(Detailed description of product including batch or serial number, name, type, model, and, where necessary, a colour image; where applicable a description of accessories and components, and software, which allow the radio equipment to operate as intended and covered by the declaration of conformity)

to which this declaration relates, is in conformity with the following designated standards and/or technical specifications

(References to standards/specifications must be listed with their identification number and version and, where applicable, date of issue)

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Regulation 6(1)(b) [EMC]: EN 301 489-1 V2.2.0, EN 301 489 -28 V1.1.1

Regulation 6(2) [Spectrum Usage]: EN 302 064 V2.1.1

Regulation 6A [Additional essential requirements]:

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Approved Body:

1929

Type Examination
Certificate No:

**UKCB2 002138
0007 Rev. 00**

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Silvus Technologies Inc. 10990 Wilshire Blvd, Los Angeles, CA 90024

(Name and address of the UK Authorised Representative, if applicable and formally appointed by the manufacturer)

11/17/2023

(Signature of authorised person)

Grant Denoon

(Date)

San Diego, CA, USA

(Name of authorised person)

Director of RF Engineering

(Place of issue; e.g. City/town, and Country)

(Job title)



UK Type Examination Certificate

Certificate No: UKCB2 002138 0007 Rev. 00

Certificate Holder: Silvus Technologies, Inc
10990 Wilshire Blvd., Suite #1500
Los Angeles CA 90024
USA

Product Type: Base station
High-throughput wireless MIMO OFDM transceiver, for digital
data and digitized video

Model(s):
SC4240EP-235467-BB
SC4240EP-235467-EB
SC4480E-235467-SBST

We, as UK Approved Body number 1929, have examined the technical documentation and supporting evidence for the above listed equipment and found it to comply with the requirements of Schedule 3 Module B of The Radio Equipment Regulations 2017 as amended, in relation to the following essential requirements covered by the examination

Essential Requirements: Regulation 6(2) in respect to the Radio Spectrum

This is based upon examination of the following Technical Data file. Please refer to the Annex for further technical details.

Technical Documentation: SC4200-235467 SC4400-235467 TCF

Valid from: 2023-11-10


(Evan Gould)

Total pages: info 2

The certificate has been issued in accordance with the Certification Regulations of TUV SUD America (Approved Body Number 1929) and constitutes page 1 of the combined Certificate and Annex.

The UKCA mark may be used on the equipment described above subject to the equipment meeting the compliance requirements of all applicable UK Regulations.

The conditions for the validity of this certificate are listed in the Annex.
For further details related to this certification please contact certification.us@tuvsud.com

Issued by TUV SUD America under document number: CB-23-248 i01

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