

RF Exposure Report

Report No.: FCC_RF_SL20060401-STR-006(Receiver)_MPE

FCC ID: SSH-SYNK4KRX

Test Model: 0240031075

Series Model: N/A

Received Date: 06/24/2020

Test Date: 06/24/2020 – 06/29/2020

Issued Date: 09/02/2020

Applicant: Stryker Endoscopy

Address: 5900 Optical Court, San Jose, CA, 95138, USA

Manufacturer: Stryker Endoscopy

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Issued By: Bureau Veritas Consumer Products Services, Inc.

Lab Address: 775 Montague Expressway, Milpitas, CA 95035

Test Location (1): 775 Montague Expressway, Milpitas, CA 95035

**FCC Registration /
Designation Number:** 540430



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Release Control Record

Issue No.	Description	Date Issued
FCC_RF_SL20060401-STR-006(Receiver)_MPE	Original Release	09/02/2020

2 RF Exposure

2.1 Limits for Maximum Permissible Exposure (MPE)

Frequency Range (MHz)	Electric Field Strength (V/m)	Magnetic Field Strength (A/m)	Power Density (mW/cm ²)	Average Time (minutes)
Limits For General Population / Uncontrolled Exposure				
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f ²)*	30
30-300	27.5	0.073	0.2	30
300-1500	f/1500	30
1500-100,000	1.0	30

f = Frequency in MHz; *Plane-wave equivalent power density

2.2 MPE Calculation Formula

$$Pd = (Pout * G) / (4 * \pi * r^2)$$

Where

Pd = power density in mW/cm²

Pout = output power to antenna in mW

G = gain of antenna in linear scale

Pi = 3.1416

R = distance between observation point and center of the radiator in cm

2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.
 So, this device is classified as Mobile Device.

2.4 Antenna Gain

The antenna type is PCB antenna with 3.9 dBi peak gain.

2.5 Calculation Result of Maximum Conducted Power

Frequency Band (MHz)	Max Power (dBm)	Max Power (mW)	Turn-Up Tolerance	Antenna Gain (dBi)	Distance (cm)	Power Density (mW/cm ²)	Limit (mW/cm ²)
5190-5230	20.56	113.76	± 1dB	3.9	20	0.069	1
5270-5310 5510-5710	21.84	152.76	± 1dB	3.9	20	0.094	1
5775-5795	21.25	133.35	± 1dB	3.9	20	0.082	1

Note:

1. Determining compliance based on the results of the compliance measurement, not taking into account measurement instrumentation uncertainty.
2. Calculate SAR test exclusion thresholds from condition “1” formulas.

3 Conclusion

Conclusion:

The formula of calculated the MPE is:

$$CPD1 / LPD1 + CPD2 / LPD2 + \dots \text{etc.} < 1$$

CPD = Calculation power density

LPD = Limit of power density

Maximum = 0.090 < 1

Therefore the maximum calculations of above situations are less than the “1” limit.

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