

Instructions for Use

IMPORTANT SAFEGUARDS:
READ ALL INSTRUCTIONS BEFORE USE

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Important safeguards

READ ALL INSTRUCTIONS BEFORE USE.

(for latest User Guide, please refer to https://exciteosa.com)

WARNINGS

To avoid the risk of electrocution, burns, fire or physical injury:

- The device is only to be used while awake. It should not be used while sleeping.
- Only the supplied products should be used together. Do not use attachments other than
 those recommended by the manufacturer.
- Discontinue use if the product appears damaged in any way.
- Never attach the Mouthpiece directly to a charging source other than the control unit provided.
- This device should only be charged using the USB Cable provided.
- Do not operate in close proximity (e,g. 3.4 feet) to a shortwave or microwave unit as other Electromagnetic equipment may produce instability in the stimulator output.
- · Always keep the Control Unit away from water.
- Unplug the Control Unit immediately if it falls into water.
- Never use a damaged USB Cable to charge the Control Unit.
- This product contains no user serviceable parts. Refer to "Warranty" and "Trouble Shooting" if appliance no longer works as expected.
- The device is only to be used as specified in this document.

READ ALL INSTRUCTIONS BEFORE USE.

WARNINGS

To avoid the risk of physical injury:

- This device should not be used by persons:
 - й children (under 18 years of age)
- eXcite^{OSA®} should be kept away from children and pets (choking hazard and electrical hazard).
- eXcite^{OSA} to be used in a home or healthcare environment (or equivalent).
- The eXcite^{OSA} durable control unit can be re-purposed for use by multiple successive patients.
- eXcite^{OSA}'s disposable mouthpiece is for single patient use.
- Do not use eXcite^{OSA} when driving a vehicle or operating machinery and other equipment.
- When charging the device, keep away from all liquids.
- No modification of this device is allowed. Do not try to alter, trim or change any components of the device.
- The silicone on the mouthpiece must be intact before use. If there is any breach of the silicone (including electrodes) - DO NOT USE THE MOUTHPIECE.

READ ALL INSTRUCTIONS BEFORE USE.

CONTRAINDICATIONS Do not Use eXciteOSA if:

- · you are pregnant or may be pregnant
- you have a pacemaker or implanted electrodes
- you have dental braces or jewellery in your mouth.
- you are suffering from mouth ulceration or recent dental work.
- having or suspecting of having obstructive sleep apnoea with AHI greater than 15.

Safety and effectiveness in the above conditions have not been established.

PRECAUTIONS Consult your Doctor/Dentist if:

- you have gum disease or have bleeding from your gums or other oral conditions.
- you experience pain, numbness or bleeding after using this product.
- you have any nose, throat conditions and previous oral surgery
- you have any medical conditions
 - й Facial skeletal abnormalities
 - й Obesity (BMI > 35)

This device should not be used:

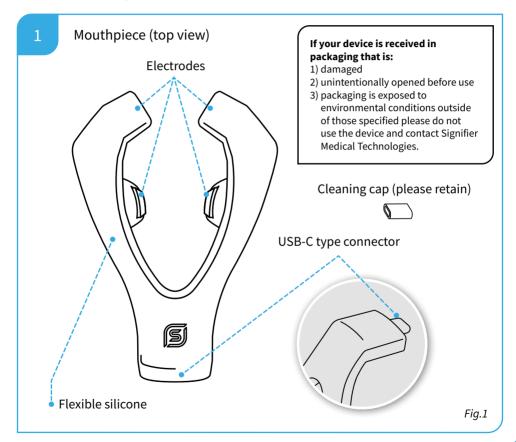
- while asleep (device only to be used when awake)
- in contact with your head, neck, spine, chest, eyes, ears or any other parts of the body other than inside the mouth as instructed.

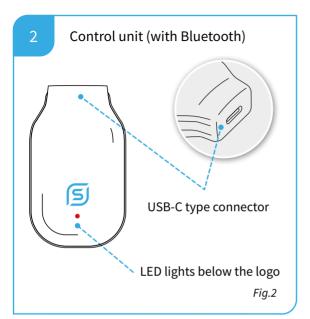
Adverse Reactions:

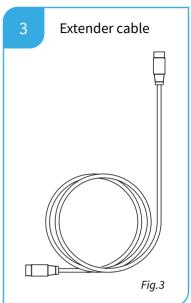
- · accumulation of saliva
- · tingling sensation on tongue

What's in the box?

eXcite^{OSA} package includes:







eXcite^{OSA} USB charging cable (15 cm cable connect to UL-Certified USB wall charger (not provided) with 5 VDC, Min 0.5 AMP output)



Note: Only use the eXcite^{osa} USB charging cable provided. Using another cable could damage the device and void your warranty.

Fig.4

Intended use

eXcite^{OSA} is intended for the reduction of snoring and obstructive sleep apnoea by strengthening tongue muscles via electrical muscle stimulation.

INDICATIONS FOR USE: eXcite^{osa} is indicated for use to reduce snoring and mild sleep apnoea (AHI<15) for patients that are 18 years or older.

eXcite^{OSA} smartphone application

eXcite^{OSA} device can be controlled by eXcite^{OSA} Smartphone application. Smartphone application can be downloaded from App Store (Apple iOS) or Play Store (Google Android).







LOG IN & SIGN UP

The log in & sign up section allows you to authenticate or create an account.

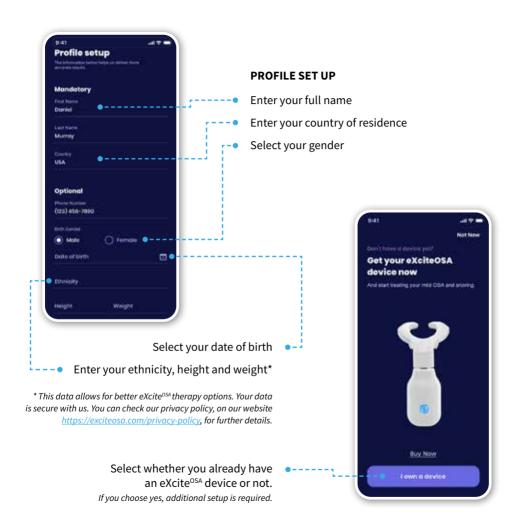
SIGN UP

Enter the e-mail you want to register with

Enter a secure password (minimum 6 characters)

If you are already registered you can log in here

You can sign up with one of these services (this will require authentication on the appropriate external service)





POLICY

There are a number of terms you have to agree to in order to use the eXcite^{OSA} device with the mobile app.

First, make sure you read the Terms and Conditions page, and agree with them.

Next, please confirm that you do not use a pacemaker and that you are not pregnant. It is very important that none of these apply to you as the eXcite^{OSA} device can interfere with your pacemaker or with your baby's development.

Also, you must be 18 years of age or older.



Enter your registered e-mail and password

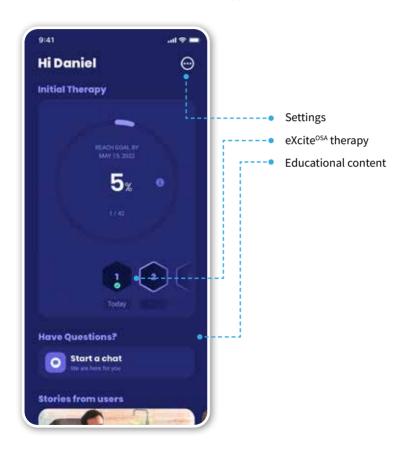
If you forgot your password, tap here. You will receive an e-mail with further instructions.

You can log in with one of these services (this will require authentication on the appropriate external service)



THE DASHBOARD

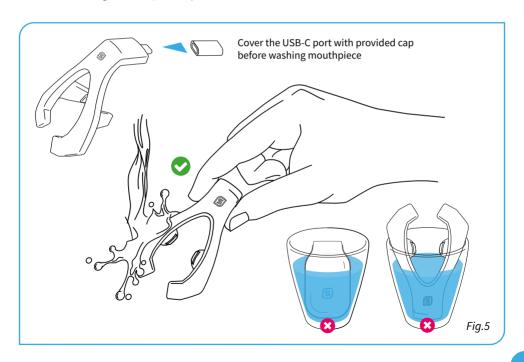
The dashboard is the main screen of the app where all the features are available from.

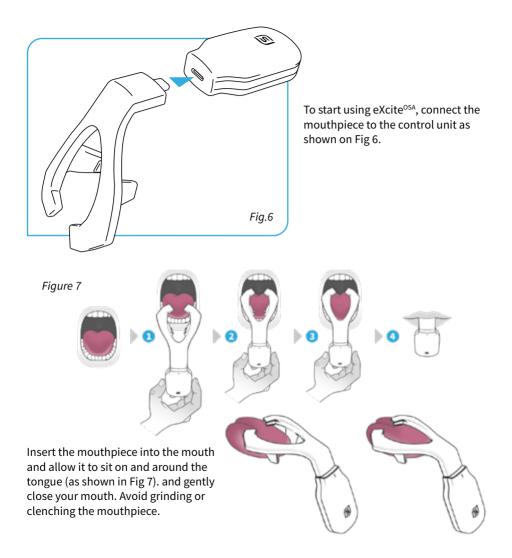


Using your eXcite^{OSA} with a smartphone application

Before starting your therapy be sure to: check the silicone on the mouthpiece is not cracked or broken before use. If there is any evidence of damage to the silicone - **DO NOT USE THE MOUTHPIECE**.

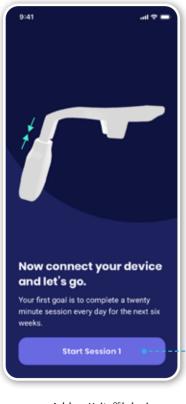
Before use, wash the mouthpiece with cold and running tap water as shown in Fig 5. Avoid water reaching the USB port. Dry with clean towel.





My eXcite^{OSA} phone application

My eXcite^{OSA} is the place where you can start your eXcite^{OSA} therapy or add your device.



This screen will appear if you haven't already added a device.

In order for the eXcite^{osA} device to work, you need to allow Bluetooth connection. For iOS 13 or above you need to manually allow Bluetooth permission.

Before starting your therapy be sure to: check your device for cracks or broken parts, connect the controller to the mouthpiece, insert the mouthpiece into the mouth.

Add a eXcite^{OSA} device (make sure that the device is nearby)



CONNECT

In order to start the therapy, you need to pair your phone with the control unit. Follow the instructions on the eXcite^{APP} screen to connect and make sure the control unit is close to your phone.

You should see a blue flashing light to connect via Bluetooth to the phone.

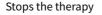
Controlling your therapy level

To change your therapy level, simply slide the level setting from the bottom of the bar on your screen.

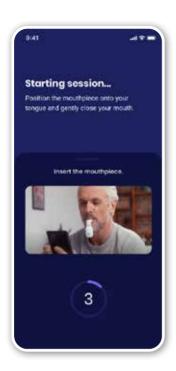
It is important to set the device to the highest possible therapy level that still feels comfortable for you. This will ensure the best possible outcome.

If therapy becomes painful or uncomfortable, simply remove the mouthpiece or lower the therapy level.

Please follow the advice from the prescribing clinician on recommended starting therapy level.







COUNTDOWN

After pairing your eXcite^{OSA} device with your mobile phone, your therapy will start with a countdown from 3 to 1 before initiating the actual therapy.



STOP THERAPY

Therapy can be stopped at any time but due to safety reasons it can only be restarted after 30 minutes after the device has been stopped or the therapy has ended.

Keep this in mind when stopping the therapy.



PAUSE THERAPY

Therapy can be paused at any time. It can be paused only for 3 minutes. After the 3 minutes have passed the therapy is considered stopped and can only be restarted after 30 minutes.



SET A REMINDER

You can set a reminder at a specific time each day, so that you don't miss your therapy.

END OF THERAPY SESSION

Therapy can be paused at any time for up to 3 minutes. After the 3 minutes have passed the therapy is considered stopped and can only be restarted after 30 minutes.

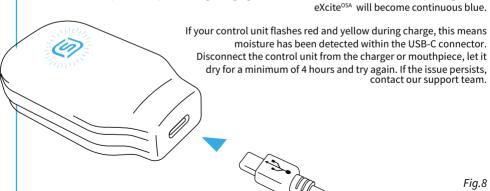
Frequency of usage

It is recommended you use eXcite^{OSA} once daily for a continuous 20 minutes. It can take up to 6 weeks of daily therapy before you will gain the desired improvement in your mild to moderate OSA, moderate OSA or snoring. Once the desired results are achieved, it is recommended to have a once a week regular maintenance regime. eXcite^{OSA} can be used long term. This is comparable to maintaining your physical fitness by undertaking regular exercise.

You are recommended to replace the Mouthpiece after **three months** of first use, which includes the maintenance period.



Before using the device for the first time, you must charge the battery for at least 2 hours. The Control Unit LED will flash blue and yellow if there is inadequate charge to run a full 20 minute therapy session. When the Control Unit (Fig 8) blinks blue and yellow, recharge the Control Unit. To charge the Control Unit, use the USB Cable provided and connect the Control Unit connector into a USB power adapter. During charging, the eXcite^{OSA} will blink blue. When fully charged, the eXcite^{OSA} will become continuous blue.



Storing & traveling with your eXcite^{OSA}

MOUTHPIECE

Once the mouthpiece has been washed in tap water and dried, it can be stored in its storage stand. The mouthpiece is packaged in a removable stand which can be used for storage or act as a regular stand the mouthpiece.

CONTROL UNIT

The control unit must be kept dry throughout its use and storage. After use, store in a dry environment or the storage box. If you plan to travel with your eXcite^{OSA}, place each unit in its original packaging to protect during transportation.

Washing

MOUTHPIECE

The mouthpiece should be washed before and after each use. Before cleaning, remember to place the cleaning cap over the mouthpiece connector. Use running tap water to wash the mouthpiece. Dry with a clean towel and store in a dry place. **DO NOT** wash with alcohol based cleaning solutions.

CONTROL UNIT

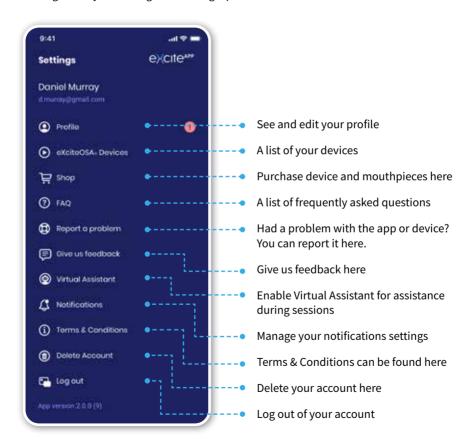
Wipe the control unit surface with a damp cloth or antiseptic wipe once a week. **DO NOT** immerse the control unit in water or cleaning solutions. Always store the control unit in a dry place.

Software Updates

The app will notify you of any necessary software updates. Please follow the instruction on the app.

Settings

Manage all of your settings from a single place.



SEE/EDIT PROFILE

Change any of the data already provided and then tap 'Save', to save your changes.



FAQ

Check the Frequented Asked Questions for further information.



REPORT A

Did anything go wrong with the app or the device? Describe the problem and let us know. We'll try to solve it and take the appropriate measures.



NOTIFICATIONS

Change the time of your notifications.
Enable or disable them, so that you can have a smoother experience.



Frequently asked questions

Why do I snore?

Snoring is caused by vibration of the structures of the throat during sleep. When you sleep, the muscles of the throat relax and partially collapse. The narrowest parts of the throat can then create turbulence of the air flowing through your throat which makes the snoring sound

You're more likely to snore if you:

- · are overweight
- smoke

- · drink too much alcohol
- sleep on your back

Is snoring dangerous?

It has been shown that Snoring affects sleep quality of the snorer and partner. It is important to note that snoring may just be the tip of the iceberg. Although snoring per say may not damage your health, snoring can be a clue to a more serious condition called obstructive sleep apnoea (intermittent complete blockage of breathing during sleep).

Do I have sleep apnoea?

Sleep apnoea is a serious health condition associated with health problems like high blood pressure and increased risks of heart attack, stroke, or death. It is often associated with day time sleepiness and your partner may notice you breath hold or stop breathing in the night.

If you have these symptoms or are concerned you may have the condition, please refer to your doctor.

How does eXcite^{OSA} device work?

The eXcite^{OSA} device will deliver small electric currents through the Mouthpiece to your tongue, this will stimulate the tongue muscle and improve its tone. The improved tone of the tongue muscle will help in keeping the breathing passage open during your sleep and reduce the vibration of the throat region.

How soon do I see the result with eXcite^{OSA}?

You should notice an improvement in your snoring within 6 weeks. This is dependent upon adherence to the recommended therapy programme of one 20 minute session daily. Although you may see improvement within 4 weeks, we recommend you finish the 6 week therapy period to ensure you gain the optimal improvement possible.

At what level should I start and what is the optimum level for my treatment?

The intensity always starts at level 1; it is recommended that you increase the intensity to a level that is comfortable for you for each therapy session. The therapy changes frequencies at 5 minute intervals. At these intervals the stimulation will automatically drop in intensity for comfort. If you feel any discomfort or lack of stimulation, then the intensity can be reduced or increased accordingly. Over the duration of the recommended therapy programme you will notice that your tolerance levels will increase, and you can go up in intensity comfortably. It is important to avoid increasing the intensity to beyond comfortable level, as higher intensity will not lead to additional improvement.

What should I expect during and after my treatment?

During the therapy you should experience a tingling sensation on the tongue and tongue muscle contractions. As the intensity is increased the muscle contraction will get stronger. Please remember to set the intensity at a level that is comfortable for you. Increasing the intensity beyond comfortable level will not improve the outcome of the therapy session. It may become an uncomfortable sensation. It is common to experience an increase in saliva. It is recommended the user swallows this, so it doesn't accumulate.

What time of the day should I use the eXcite^{OSA} device?

The eXcite^{OSA} can be used anytime during the day, but it is recommended to be used before you go to sleep at night.

What does a flashing red & yellow LED mean?

If your Control Unit flashes red and yellow during charge or during mouthpiece connection, this means moisture has been detected within the Control Unit USB-C connector. Disconnect the control unit, let it dry for a minimum of 4 hours and try again. If the issue persists, contact our support team at support@signifiermedical.com.

What does a solid yellow LED mean?

A solid yellow LED indicates a system error. Disconnect the control unit until the yellow LED turns off. Attempt connection again, if the solid yellow LED persists, contact our support team for assistance at support@signifiermedical.com.

Do I need to use the extender cable?

You can use the extender cable if you are experiencing excess salivation and moisture is entering your control unit. This extender cable will help prevent moisture entering your control unit

The extender cable can be used as an intermediate connection between the Control Unit and Mouthpiece during therapy.

What if I don't replace my mouthpiece after 90 days from first use?

The mouthpiece will deactivate and will not function. Be sure to order a replacement mouthpiece well in advance of 90 days so that your therapy schedule is not interrupted.

Trouble shooting

The Control Unit powers up but the Mouthpiece does not work:

- Check the Control Unit has adequate power to run a 20 minutes therapy session
- Check there is no fluid ingress within the USB connector
- · Check there is no damage to the mini USB connector
- · Check there is no damage to the Mouthpiece
- If the above steps have been implemented, then contact the eXcite^{OSA}'s Help/Support team by emailing support@signifiermedical.com or calling +1 844 MildOSA

eXcite^{OSA} system, operational requirements

Temperature +41°F to +104°F (+5°C to +40°C) Humidity 15% to 90% Atmospheric Pressure 10.15 psi to 15.37 psi (70 kPa to 106 kPa) Operational life is 3 years.

eXcite^{OSA} system, transport and storage requirements

Temperature -13°F to +158°F (-25°C to +70°C)
Humidity up to 90%
Atmospheric Pressure 10.15 psi to 15.37 psi (70 kPa to 106 kPa)
When the device is exposed to extreme temperatures, please wait at least 60 minutes before attempting to use the device.

DISPOSAL

Please return the products to your supplier for disposal. The Control Unit contains a rechargeable battery and should not be disposed in general waste.

FAULTS & REPAIRS

eXcite^{OSA} should be used in accordance with this User Guide above and with the approved accessories and contains no user serviceable parts. Do not try to repair, alter or change the components of the three individual units of the eXcite^{OSA}, as this will invalidate your warranty. If the Mouthpiece or Control Unit is not functional due to wear and tear, it will not be covered by the warranty. The Mouthpiece is recommended to be replaced after 3 months of first use.

WARRANTY

Signifier Medical Technologies Ltd. provides a warranty to the original purchaser confirming the product will be free from defects in the material, components and workmanship for a period of 3 months for the Mouthpiece and 1 year (Control Unit only) from the date of purchase. For valid warranty claims, the user may return after authorisation, the eXciteOSA directly to the local eXcite^{OSA} contact or Signifier Medical Technologies Ltd. eXcite^{OSA} warranty does not include any misuse or abuse such as dropping or immersing the Control Unit in water or other liquid substance or tampering with the unit or normal wear and tear. Any evidence of tampering will void the warranty. This warranty does not apply to "wear and tear" that would occur with usage.

CUSTOMER SERVICE

Please email support@signifiermedical.com or call +1 844 MildOSA for any warranty returns, general assistance in setting up or using the device, or to report any issues or complaints. Your invoice of purchase should state the name and the contact details of your local Signifier Medical Technologies contact. For assistance in setting up, using or maintaining the unit, or to report unexpected operation or events please contact Signifier Medical Technologies customer service.

If you have an absence of clinical benefit following completion of 42 therapy sessions within an 8-week period, please contact your doctor or Signifier Medical Technologies.

Symbols used



Refer to instructions manual



Storage Temperature Limits





Catalog number



Serial number



Keep dry



Country & date of manufacture



Manufacturer



Type BF applied part



WEE directive



USB C



Federal Communications Commission



Medical Device

Specifications





	Control Unit Mouthpiece		
Color	White and Blue White and Grey		
Packaging	eXcite ^{OSA} is packed in a protective box package		
Power source	Rechargeable 100mAh LiPo cell	N/A	
Max output voltage	30.8 V Output varies with impedance		
Max output current	70mA Output varies with impedance		
	100 uS for each of the two biphasic output pulses of opposite polarity, resulting in a balance d.c. component. Pulse repetition frequency up to 20 Hz		
Output signal	The Control Unit is designed to attempt to output 40 mA at the highest setting (setting 15), and proportionally for other intensity settings. However, it is limited by the maximum available voltage of 30.8 V. The resulting output is then impedance R dependent, so the output is 40 mA * intensity / 15, but thresholded to 30.8 V / R.		
	This is valid for any potential tongue impedance.		
Operating temperature	From +41°F to +104°F (+5°C to +40°C)		
Storage temperature	-13°F to +158°F (-25°C to +70°C)		

Specifications





	Control Unit	Mouthpiece		
Atmospheric Pressure Range	10.15 psi to 15.37 psi (70 kPa to 106 kPa)			
Humidity	Relative Humidity 15% to 90%	Relative Humidity up to 100%		
Degree of Protection	Control Unit (1P44) (IP 44 - Protection protected against objects > 1 ml and splashing water, IP42 - Protection protected against objects > 1 ml and dripping water) IP 64 - Mouthpiece (Protection against dust and splashing water) IP67 - Mouthpiece (Protection against dust and temporary immersion in water) IP 22 - Extender cable (protected against touch and objects > 12mm and water spray < 15 degrees from vertical)			
Mode of operation	ON/OFF			

Radio Frequency Information	Control Unit
Frequency Band Of Reception	2.4 GHz to 2.48 GHZ
The Bandwidth of The Receiving Section in Those Bands	2 MHz
Effective Radiated Power	up to 3.5 dBm

IEC 60601-1-2:2014 (EDITION 4) / EN 60601-1-2:2015 (Home healthcare environment)

Standard	Category			
CISPR 11 / EN 55011	Emissions	Radiated Emissions (30 - 1000 MHz)	Class B	
CISPR 11 / EN 55011	Emissions	Conducted Emissions	N/A	
IEC/EN 61000-3-2	Emissions	Harmonic Current Emissions	N/A	
IEC/EN 61000-3-3	Emissions	Voltage Fluctuations and Flicker	N/A	
RTCA/DO160G	Emissions	Radiated Emissions (100 MHz - 6 GHz)	Section 21 Category M	
ANSI C63.4, FCC CRF 15.209 / ICES-003	Emissions	Radiated Emissions (30 MHz - 12.5 GHz)	Class B	
IEC/EN 61000-4-2	Immunity	Electrostatic Discharge Immunity	Air: 2,4,8,15kV. Contact: 8kV	
IEC/EN 61000-4-3	Immunity	Radiated RF Immunity	10 V/m: 80 MHz to 2.7 GHz. 3 V/m: 2.7 GHz to 6 GHz	
IEC/EN 61000-4-3 / IEC/EN 61000-4-39	/EN 61000-4-39 Immunity Immunity to Proximity fields from RF wireless communications equipment			
			385 MHz 450 MHz 710, 745, 780 MHz 810, 870, 930 MHz 1720, 1845, 1970, 2450 MHz 5240, 5500, 5785 MHz	27 V/m 28 V/m 9 V/m 28 V/m 28 V/m 9 V/m
IEC/EN 61000-4-4	Immunity	Electrical Fast Transients Immunity	N/A	
IEC/EN 61000-4-5	Immunity	Voltage Surge Immunity	N/A	
IEC/EN 61000-4-6	Immunity	Conducted RF Immunity	N/A	
IEC/EN 61000-4-8	Immunity	Power Frequency Magnetic Field Immunity	N/A	
IEC/EN 61000-4-11	Immunity	Voltage Dips and Short Interruptions Immur	nity 100 % reduction for Half Cycle 30 % reduction for 25/30 Cycles 100 % reduction for 1 Cycle >95 % reduction for 250/300 Cycles	

WARNING:

- Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.
- Use of accessories, transducers and cables other than those specified or provided by the
 manufacturer of this equipment could result in increased electromagnetic emissions
 or decreased electromagnetic immunity of this equipment and result in improper
 operation.
- Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the eXcite^{OSA} System, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.
- eXcite^{OSA} is not specified for use only in a shielded location.
- eXcite^{OSA} is not considered a large ME equipment.
- eXcite^{OSA} does not claim compatibility with HF SURGICAL EQUIPMENT and is not intended for use with HF surgery.

If the eXcite OSA system is exposed to EM disturbance, there should not be any loss or degradation to performance. However, the performance should be monitored for the accuracy of waveform.

Declarations

FOR USA

FCC warning statement:

This device complies with Part 15 of the FCC Rules.

- Operation is subject to the following two conditions:
 - 1. This device may not cause harmful interference, and
 - 2. This device must accept any interference received, including interference that may cause undesired operation.
- This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
- Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment

FOR CANADA

"This device complies with Industry Canada's licence-exempt RSSs. Operation is subject to the following two conditions:

- 1. This device may not cause interference; and
- This device must accept any interference, including interference that may cause undesired operation of the device."

Please see Section 8.4 of RSS-Gen Issue 4 for further information.

Signifier Medical Technologies Limited

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This product is Manufactured by Signifier Medical Technologies

in compliance with Medical Device Standards and Quality Standards: ISO 13485:2016



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