

April 22, 2021

Implants Diffusion International % Angela Blackwell Senior Consultant Blackwell Device Consulting P.O. Box 718 Gresham, Oregon 97030-0172

Re: K200329

Trade/Device Name: IDCAM Dental Implants

Regulation Number: 21 CFR 872.3640

Regulation Name: Endosseous Dental Implant

Regulatory Class: Class II Product Code: DZE, NHA Dated: March 18, 2021 Received: March 23, 2021

### Dear Angela Blackwell:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. Although this letter refers to your product as a device, please be aware that some cleared products may instead be combination products. The 510(k) Premarket Notification Database located at <a href="https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm">https://www.accessdata.fda.gov/scripts/cdrh/cfdocs/cfpmn/pmn.cfm</a> identifies combination product submissions. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803) for devices or postmarketing safety reporting (21 CFR 4, Subpart B) for combination products (see <a href="https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products">https://www.fda.gov/combination-products/guidance-regulatory-information/postmarketing-safety-reporting-combination-products</a>); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820) for devices or current good manufacturing practices (21 CFR 4, Subpart A) for combination products; and, if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to <a href="https://www.fda.gov/medical-devices/medical-device-safety/medical-device-reporting-mdr-how-report-medical-device-problems">https://www.fda.gov/medical-device-problems</a>.

For comprehensive regulatory information about medical devices and radiation-emitting products, including information about labeling regulations, please see Device Advice (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance</a>) and CDRH Learn (<a href="https://www.fda.gov/training-and-continuing-education/cdrh-learn">https://www.fda.gov/training-and-continuing-education/cdrh-learn</a>). Additionally, you may contact the Division of Industry and Consumer Education (DICE) to ask a question about a specific regulatory topic. See the DICE website (<a href="https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice">https://www.fda.gov/medical-devices/device-advice-comprehensive-regulatory-assistance/contact-us-division-industry-and-consumer-education-dice</a>) for more information or contact DICE by email (DICE@fda.hhs.gov) or phone (1-800-638-2041 or 301-796-7100).

Sincerely,

Andrew I. Steen
Assistant Director
DHT1B: Division of Dental and ENT Devices
OHT1: Office of Ophthalmic, Anesthesia,
Respiratory, ENT and Dental Devices
Office of Product Evaluation and Quality
Center for Devices and Radiological Health

Enclosure

# DEPARTMENT OF HEALTH AND HUMAN SERVICES Food and Drug Administration

## Indications for Use

510(k) Number (if known)

Form Approved: OMB No. 0910-0120 Expiration Date: 06/30/2023

Expiration Date: 06/30/2023 See PRA Statement below.

K200329		
Device Name IDCAM Dental Implants		
Indications for Use (Describe) IDCAM Dental Implants are endosseous implants intended to be surgically placed in the upper or lower jaw arches to provide support for prosthetic devices, such as an artificial tooth, in order to restore patients esthetics and chewing function. IDCAM implants are intended for single or multiple unit restorations on splinted or non-splinted applications. They are intended for immediate loading when good primary stability is achieved, and with appropriate occlusive loading. These implants can also be used for loading after a conventional healing period.		
Type of Use (Select one or both, as applicable)		
Prescription Use (Part 21 CFR 801 Subpart D) Over-The-Counter Use (21 CFR 801 Subpart C)		
CONTINUE ON A SEPARATE PAGE IF NEEDED.		

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# 510k Summary April 21, 2021 IDCAM Dental Implants K200329

Name and address: Implants Diffusion International

23 rue Emile Zola

Montreuil France 93100

Contact Person: Rony Boukhris

Phone Number: +33 (0) 148707048

Name of device: IDCAM Dental Implants

**Classification Name:** Endosseous dental implants

CFR: 21 CFR 872.3640

Primary Product Code: DZE Secondary Product Code: NHA

#### **Submission Contact:**

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**Device Description:** The ID CAM Dental Implant is a tapered conical implant system with two designs. IDCAM M (with mini-threads), and IDCAM ST. IDCAM ST has large flat threads at the top and sharp threads at the bottom and comes in diameters of 3.7, 3.9, 4.2 and 5.2 mm. Lengths of 9.4, 11.4, and 14.4 mm are available. The IDCAM M has mini-threads at the top and with sharp threads below. It comes in 4.2, and 5.2 mm diameter with lengths of 8.5,9.4, 11.4, and 14.4mm. The bottom of both IDCAM designs is convex.

All implants and abutments are made of ASTM F136 Ti 6Al 4V ELI. The implants have a grit blasted and acid etched surface.

ID CAM abutments for single unit restorations are all attached by Morse taper fit as well as a screw. Morse taper cone straight abutments come in 3.6 and 4.2mm diameter with gingival heights of 1.4, 3, and 5mm. Morse taper cone shouldered straight abutments come in 5.4mm diameter at the upper platform with a 3.6mm diameter at the platform bottom and gingival

heights of 1.3, 2.2, 3.2, and 5mm. Morse taper angled cone abutments come in  $7^{\circ}$ ,  $15^{\circ}$ , and  $23^{\circ}$  angles in diameters of 3.6 and 4.2 and gingival heights of 1.4 ( $7^{\circ}$  only) or 1.63 ( $15^{\circ}$  and  $23^{\circ}$ ), 3, and 5mm. Morse taper angled cones abutments with shoulder come in  $7^{\circ}$ ,  $15^{\circ}$ , and  $23^{\circ}$  angles in a diameter of 5.4 at the upper platform with a 3.6mm diameter at platform bottom and gingival heights of 0.9, 3, and 5mm in  $7^{\circ}$ , and gingival heights of 0.9, 2.35, 3.30, and 5.03mm in  $15^{\circ}$ , and  $23^{\circ}$ .

PLAN abutments in 5.4mm diameter at shoulder top with a 3.6mm diameter at shoulder bottom and come in gingival heights of 1.5 and 3mm and there are straight, 15°, and 23° versions. Plan abutments can be used for single or multiple unit restorations but are not used for removable prostheses.

Straight IDUnit abutments, angled IDUnit abutments, IDLoc abutments, and ball attachments are permanent threaded abutments which are for multi-restorations only. IDLOC is 3.6mm diameter at platform and comes in gingival heights of 2.5, 4, 5.5, and 7.5 mm. Ball attachments are in 3.5 diameter and come in gingival heights of 1, 2.5, 4, or 6mm. Straight IDUnits are in 3.6mm diameter with 4.9mm diameter at top of shoulder and come in gingival heights of 1, 2.5, 4 or 6 mm. 17° angled IDUnits come in 3.6mm diameter with 4.9mm diameter at top of shoulder and in a gingival heights of 1.35,3.02 or 5 mm. 30° angled IDUnits come in 3.6mm diameter with a 4.9mm diameter at top of shoulder and in a gingival heights of 1,3.01 or 5 mm. Straight and angled IDUnit mounted dentures can only be removed by the dentist, but dentures mounted on IDLoc or ball attachments can be removed by the patient.

Provisory abutments are temporary use abutments which allow placement of a temporary restoration. These come in 3.6mm diameter and varieties of nonrotational (4.8mm diameter at top of shoulder, gingival height of 1.5mm and post height of 7.5mm), nonrotational tall (4mm diameter at top of shoulder, gingival height of 1.5mm and post height of 12.5mm), rotational (gingival height of 1.5mm and post height of 7.5mm) and provisory IDUnit (4.9mm diameter at the base and a post height of 10.5mm).

Healing caps are temporary use abutments used during the healing phase which come in different gingival heights shapes in order to account for tissue thickness differences and space differences. Cylindrical shape healing caps come in diameters of 3.2mm with heights of 3.5 and 5mm, 4 & 5 mm with heights of 2, 4, 6, and 8mm. Conical profile healing caps come in 3.6mm diameter at the platform with a 6mm cone top diameter and 4mm gingival height, or a 3.6mm diameter at platform with a 6mm cone top diameter and gingival height of 6mm. There is also a healing cap for the IDUnit.

**Indications for Use:** IDCAM Dental Implants are endosseous implants intended to be surgically placed in the upper or lower jaw arches to provide support for prosthetic devices, such as an artificial tooth, in order to restore patients esthetics and chewing function. IDCAM implants are intended for single or multiple unit restorations on splinted or non-splinted applications. They

are intended for immediate loading when good primary stability is achieved, and with appropriate occlusive loading. These implants can also be used for loading after a conventional healing period.

Testing Summary: Dynamic fatigue testing according to ISO 14801 was conducted to determine the abutments and implants are strong enough for their intended use. IDCAM implants exhibited a run out limit equivalent to other implant systems. Surface modification information was provided per the FDA Guidance Document for Endosseous Dental Implants and Abutments. Surface analysis and cytotoxicity testing per ISO 10993-5 was done to show the surface treatment does not adversely change the biocompatibility of the materials. All the materials are ones common in dental implant systems and are appropriate materials for devices used with dental implants. Implants and abutments are made of titanium alloy which meets ASTM F136. Sterilization validation was conducted on the implants per ISO 11137-1,-2,and -3. Abutment steam sterilization validation was done per ISO 17665-1, ISO 17665-2 and ANSI/AAMI ST79. Package integrity testing and accelerated aging were conducted per ISO 11607-1 and -2. Endotoxin testing according to USP 161 was conducted.

Primary Predicate Device: SpiralTech Dental Implant System Ultimate Conical K170372

Reference Predicates: Cortex K090709 and K163385

### **Substantial Equivalence:**

IDCAM Dental Implants are substantially equivalent to SpiralTech Dental Implant System in indications for use, materials, design, and fatigue performance.

Implant System Comparison Table	ID CAM Dental Implants (Subject	SpiralTech Dental Implant System
Companson rable	Device)	K170372 Ultimate Conical
Indications for Use	IDCAM Dental Implants are endosseous implants intended to be surgically placed in the upper or lower jaw arches to provide support for prosthetic devices, such as an artificial tooth, in order to restore patients esthetics and chewing function.	The Spiraltech Dental Implants are endosseous implants intended to be surgically placed in the upper or lower jaw arches to provide support for prosthetic devices, such as an artificial tooth, in order to restore patient's esthetics and chewing function.  Spiraltech implants are intended for single

	IDCAM implants are intended for single or multiple unit restorations on splinted or nonsplinted applications. They are intended for immediate loading when good primary stability is achieved, and with appropriate occlusive loading. These implants can also be used for loading after a conventional healing period.	or multiple unit restorations on splinted or nonsplinted applications. The implants ESi Dynamic and Ultimate are intended for immediate loading when good primary stability is achieved, and with appropriate occlusive loading. These implants [along with Premium and One Piece] can also be used for loading after a conventional healing period. Solo One Piece 3.0 and 3.3 implants, Ultimate (conical) 3.0 implants, and ESi (conical) 3.0 implants are intended to replace a lateral incisor in the maxilla and/or a central or lateral incisor in the mandible. Mandibular central and lateral incisors must be splinted if using two or more 3.0 and/or 3.3 implants adjacent to one another.
Material	Ti6Al4V	Ti6Al4V
	IDCAM M	
Diameter of Implants	4.2, 5.2	3.0, 3.5, 4.3, 5.0, 6.0
Implant Lengths	8.5, 9.4, 11.4, 14.4	8, 10, 11.5, 13, 15 (3.0mm diameter not in 8 length)

Surface Treatment	SLA	SLA or RBM
Sterilization of	Provided sterile by	Provided sterile by
Implants	gamma irradiation	gamma irradiation
Sterilization of	Provided non-sterile	Provided non-sterile
abutments	with instructions for	with instructions for
	user to sterilize them	user to sterilize them
Connection	Conical	Conical
Spiral Implant Design	IDCAM M	Ultimate Conical
ISO 14801 Fatigue	Run out limit is the	Run out limit is
Test	same or higher than	comparable to other
	those of other implant	implant systems.
	systems	
	IDCAM ST	
Diameter of Implants		
	3.7, 3.9, 4.2, 5.2	3.0, 3.5, 4.3, 5.0, 6.0
Implant Lengths		8, 10, 11.5, 13, 15
	9.4, 11.4, 14.4	(3.0mm diameter not
		in 8 length)
Surface Treatment	SLA	SLA or RBM
Sterilization of	Provided sterile by	Provided sterile by
Implants	gamma irradiation	gamma irradiation
Sterilization of	Provided non-sterile	Provided non-sterile
abutments	with instructions for	with instructions for
	user to sterilize them	user to sterilize them
Connection	Conical	Conical
Spiral Implant Design	IDCAM ST	Ultimate Conical
ISO 14801 Fatigue	Run out limit is the	Run out limit is
Test	same or higher than	comparable to other
	those of other implant	implant systems.
	systems	

Conical Implant Parts	IDCAM Dental Implants	SpiralTech Dental Implant System Conical Connection Parts	Cortex K090709 and K163385 Conical Connection Parts
Cover screw	Cover screw for IDCAM 3.6mm diameter	Cover screw NP and RP	

Abutment screw	IDCAM and	NP and RP	
	IDUnit 3.6mm	abutment screws	
	abutment screws		
Multi-Unit	IDUnit 3.6mm		NP, RP, and WP
Abutments*	diameter at		Multi-unit
	platform 4.9mm		abutments in
	diameter at top		heights of 1, 2, 3,
	of shoulder		4, and 5 mm
	abutments in		
	gingival heights of		
	1,2.5, 4, and 6		
	mm		
17° Multi-Unit	IDUnit 17° Multi-		NP and RP 18°
Abutments *	Unit Abutments		Multi-Unit
	3.6mm diameter		Abutments
	at platform		in heights of 1, 2,
	4.9mm diameter		3, 4, 5 mm
	at top of shoulder		
	in gingival heights		
	of 1.35,3.02, 5		
	mm		
30° Multi-Unit	IDUnit 30° Multi-		NP and RP 30°
Abutments *	Unit Abutments		Multi-Unit
	3.6mm diameter		Abutments
	at platform		in heights of 1, 2,
	4.9mm diameter		3, 4, 5 mm
	at top of shoulder		
	in gingival heights		
Ball	of 1,3.01, 5 mm 3.5 mm diameter	NP and RP Ball	
attachments*	at platform in	attachments in	
actucinients	gingival heights of	heights of	
	1, 2.5, 4, and	1,2,3,4,5, and	
	6mm	6mm	
Healing Caps NP	Cylindrical	NP Healing Cap in	
	Healing Cap	2,3,4,5 and 6 mm	
	Narrow 3.2mm	height	
	diameter in		
	3.5,5.5 mm		
	gingival heights		
Healing Caps RP	Cylindrical	RP Healing Cap in	
	Healing Cap	2,3,4,5, and 6	
	Regular 4mm	mm height	

	diameter in 2,4, 6		
	and 8 mm		
	gingival heights		
Healing Cap WP	Cylindrical		5.8mm Healing
	Healing Cap Wide		cap in 3,4,5,6
	5mm diameter in		mm
	2, 4, 6, 8mm		
	gingival heights		
<b>Conical Profile</b>	3.6mm diameter	NP Healing Cap in	
Healing Cap	at platform 4mm	2,3,4,5 and 6 mm	
Regular	cone top	height	
	diameter and 6		
	mm gingival		
	height		
Conical Profile	3.6mm diameter	NP Healing Cap in	
Healing Cap Wide	at platform 6mm	2,3,4,5 and 6 mm	
	cone top	height	
	diameter and 6		
	mm gingival		
	height		<del></del>
Healing Cap for	IDUnit healing		Titanium healing
Multi-Unit	cap		cap for multi-
			unit 5.0mm
			diameter 4.8mm
Straight	Morse taper cone	RP Flat Standard	height
Abutment	straight	Abutment with	
Abutillent	abutment	height of 6,7,9	
	3.6,4.2mm	and 11 mm	
	diameter at		
	platform		
	gingival heights of		
	1.4, 3,5 mm		
WP Shoulder	Morse taper	NP and RP Flat	WP anatomic
Abutment	shouldered	with straight	abutment
	straight cone	shoulder	5.8mm diameter
	abutment 5.4mm	abutment in	in heights of 1, 2,
	diameter at	heights of 1,2,	3, and 4mm
	upper platform	and 3 mm	
	3.6 mm diameter		
	at platform		
	bottom gingival		

	I		1
	heights of 1.3,2.2		
	3.2, 5 mm		
	Height between		
	platform top and		
	bottom 3.7 +		
	gingival height		
NP and RP 7°	Morse taper 7°	NP and RP 15°	NP and RP 15°
Abutment	angled cone	Abutment with	Anatomic
	abutment	heights of 1,2,3	Abutment with
	3.6 and 4.2mm	mm	heights of 1,2,3,
	diameter with		4 mm
	gingival heights of		
	1.4,3,5 mm		
WP 7° Abutment	Morse taper 7°		WP 15°
with shoulder	angled cone		Anatomic
	abutment with		Abutment with
	shoulder		heights of 1,2,3,
	5.4 mm diameter		4 mm
	at upper platform		7 111111
	3.6mm diameter		
	at platform		
	bottom		
	gingival heights of		
	0.9,3,5 mm		
	Height between		
	platform top and		
	bottom 3.7 +		
ND 100450	gingival height	ND 150	ND 100.450
NP and RP 15°	Morse taper 15°	NP and RP 15°	NP and RP 15°
Abutment	angled cone	Abutment with	Anatomic
	abutment	heights of 1,2,3	Abutment with
	3.6 and 4.2mm	mm	heights of 1,2,3,
	diameter with		4 mm
	gingival heights of		
_	1.63, 3, 5 mm		
WP 15°	Morse taper 15°		WP 15°
Abutment with	angled cone		Anatomic
shoulder	abutment with		Abutment with
	shoulder		heights of 1,2,3,
	5.4 mm diameter		4 mm
	at upper platform		
	3.6mm diameter		
	at platform		
	bottom		

	gingival heights of		
	0.9, 2.35, 3.30,		
	5.03 mm		
	Height between		
	platform top and		
	bottom 3.7 +		
	gingival height		
NP and RP 23°	Morse taper 23°	NP and RP 25°	NP and RP 25°
Abutment	angled cone	Abutment with	Anatomic
	abutment	heights of 1,2,	Abutment with
	3.6 and 4.2mm	and 3mm	heights of 2,3, 4
	diameter gingival		mm
	heights of 1.63, 3,		
	5 mm		
WP 23°	Morse taper 23°		WP 25°
Abutment with	angled cone		Anatomic
shoulder	abutment with		Abutment with
	shoulder		heights of 1,2,3,
	5.4 mm diameter		4 mm
	at upper platform		
	3.6mm diameter		
	at bottom of		
	platform		
	gingival heights of		
	0.9, 2.35, 3.3,		
	5.03 mm		
	Height between		
	platform top and		
	bottom 3.7 +		
	gingival height		
Locator	IDLoc attachment	IPI NP and RP in	
Abutments *	3.6mm diameter	heights of	
	at platformi	1,2,3,4,5 and 6	
	gingival heights of	mm	
	2.5,4, 5.5, and 7.5		
WD	MM Plan straight		WD anatomic
WP	Plan straight abutment with		WP anatomic
Straight Abutment with	shoulder 5.4mm		abutment 5.8mm diameter
shoulder	diameter at		in heights of 1, 2,
SHOUIDEI	shoulder top		3, and 4mm
	3.6mm diameter		5, and 4mm
	at shoulder		
	bottom		
	Dottom		

gingival heights of 1.5 and 3mm	
ı ı ann amm ı	
	1 0
WP 15° angled Plan 15° angled WP	
	tomic
	tment with
	thts of 1,2,3,
shoulder top 4 m	m
3.6mm diameter	
at shoulder	
bottom	
gingival heights of	
1.5 and 3mm	
WP 23° angled Plan 23° angled WP	
	tomic
shoulder shoulder 5.4mm Abu	tment with
diameter at heig	thts of 1,2,3,
shoulder top 4 m	m
3.6mm diameter	
at shoulder	
bottom	
gingival heights of	
1.5 and 3mm	
Temporary3.6mm diameterNob	el Biocare
Abutments provisional K16	1435
abutments in Tem	nporary Snap
rotational Abu	tments
(gingival height eng	aging, non-
1.5, post height eng	aging, and
7.5), non- mul	ti-unit
rotational	
(gingival height	
1.5, post height	
7.5, 4.8mm	
diameter at top	
of shoulder), non-	
rotational tall	
(gingival height	
1.5mm, post	
height 12.5mm,	
4.0mm diameter	
at top of	
shoulder) and	
IDUnit (4.9 mm	

diameter at base,	
post height 10.5)	

<sup>\*</sup>These models of abutments are not for single crown use.

### **Conclusion:**

IDCAM Dental Implants are substantially equivalent to SpiralTech Dental Implant System. They both have the same indications for use, are of the same material, and have conical connections. Performance testing demonstrates substantial equivalence to the identified predicate devices. The abutments, healing caps, and angled abutments are offered in similar designs and heights. Any abutments not found in the predicate device system are found in the reference device system. The design and size differences between predicate or reference devices and the subject devices are only minor differences in geometry and size so given the use, materials and technology is the same they do not change the substantial equivalence.