3 Composition / Info	ormation on in	ngredients
The Item is composed of t	he following ingre	edients:
Water	50 - 73 %	
Non-ionic detergents	25 - 50 %	polyoxyethylenesorbitan monolaurate
NaCl	0 - 2%	
Preservative	0.05 - 0.1%	6 Preventol-D7
Safety relevant ingredients	s:	
CAS-No. 55965-84-9	< 0.1 %	aqueous preparation, containing 5-chloro-2-methyl-3(2H)- isothiazolone and 2-methyyl-3(2H)-isothiazolone
CAS-No. 9005-64-5	<50 %	polyoxyethylenesorbitan monolaurate
According to international marked by symbols.	guidelines, the pr	oduct is not a dangerous mixture and therefore not required to be

Figure D-4 Composition of 2.4 GHz Head Tissue Equivalent Matter

Note: 2.4 GHz head liquid recipes are proprietary SPEAG. Since the composition is approximate to the actual liquids utilized, the manufacturer tissue-equivalent liquid data sheets are provided below.

Schmid	& Part	tner En	gineer	ing AG					ţ	S	р)	а		g		_
eugha hone nfo@sp	usstras +41 44 beag.cc	sse 43, 245 9 om, http	8004 2 700, Fa p://ww	Zurich, ax +41 w.spe	Switz 44 24 ag.com	erland 5 9779 1												
Meas	urem	nent (Certi	ficate	e / Ma	aterial	Test											
tem N Produc Manufa	ame ct No. acturer	r	Head SL A/ SPE/	AH 19 G	u e Sin 6 AB (nulating Batch:	170619-1	HBBL1)	900-	-3800	V3)							
Measu	iremer	nt Met	hod										1					
TSL di	electric	c para	meters	s mea	sured	using ca	alibrated E	DAK pr	obe.				_					
Setup	Valida	ation		itte in .	0.59/	4				Matha								
vallual	lonres	suns w	lere w	iunin ±	2.5%	towards	s the targe	et value	es or	Metha	anoi.							
Target Target	paran	meters	s as def	fined i	n the I	EEE 15	28 and IE	C 6220	09 co	omplia	nce sta	ndarc	s.					
Teet C	onditi	ion																
Ambie	nt		Envir	onme	nt tem	peratur	(22 ± 3)°C	c and h	umic	dity < 7	70%.							
TSL To Test D	empera ate	ature	22°C 20-Ju	ın-17														
Operat	tor		CL															
Additi	onal Ir	nform	ation															
TSL D	ensity	nanit:	1.054	g/cm	3 (**K)													
I SL H	Measu	ired	3.368	Targe	t t	Diff.to T	arget [%]								_			
[MHz]	e'	e"	sigma	eps	sigma	∆-eps	∆-sigma		10.0									
1900	41.8	12.2	1.3	40.0	1.4	4.5	-8.2	ity %	7.5									
2000	41.4	12.4	1.4	40.0	1.4	3.6	-1.3	1 ate	2.5	000	******							
2050 2100	41.2	12.6	1.4	39.9 39.8	1.4	3.3	-0.9	/. Per	0.0					-				
2150	40.9	12.8	1.5	39.7	1.5	2.9	-0.2	á	-5.0								-	
2200	40.7	12.9	1.6	39.6	1.6	2.7	0.2		-7.5									~
2300	40.4	13.2	1.7	39.5	1.7	2.3	1.1		-10.0	1900 2	100 2300	2500	2700 2	2900 310	00 33	300 350	0 3700	3900
2350	40.2	13.3	1.7	39.4	1.7	2.1	1.5					Freq	uency	MHz				
2400	40.0	13.4	1.8	39.3	1.8	1.8	2.1							_				_
2500	39.7	13.7	1.9	39.1	1.9	1.3	2.6	1 -										
2550	39.5	13.7	2.0	39.1	1.9	1.1	2.2		10.0	10000		101-12	-		1752	100 001		
2650	39.1	14.0	2.1	38.9	2.0	0.5	2.6	~	7.5				17					
2700	39.0	14.2	2.1	38.9	2.1	0.2	2.7	tivity	2.5			~				*****	*****	
2750	38.7	14.3	2.2	38.8	2.1	-0.2	2.5	npuc	0.0	-	and the second							
2850	38.4	14.5	2.3	38.7	2.2	-0.8	2.6	Ŭ V	-2.5	1								
2900	38.2	14.6	2.3	38.6	2.3	-1.0	2.6	8	-7.5	I								
3000	37.9	14.8	2.5	38.5	2.4	-1.7	2.6		-10.0	L								
3050	37.7	14.8	2.5	38.4	2.5	-2.0	2.8		1	1900 21	00 2300	2500 2	2700 2	900 310	00 33	300 350	0 3700	3900
3150	37.3	14.9	2.6	38.3	2.5	-2.3	2.0					Fre	equen	cy MHz				
3200	37.1	15.1	2.7	38.3	2.6	-3.0	2.9											
3250 3300	37.0	15.1	2.7	38.2	2.7	-3.3	3.0 3.1											
3350	36.6	15.3	2.8	38.1	2.8	-3.9	3.2											
3400	36.4	15.3	2.9	38.0	2.8	-4.2	3.3											
3450	36.3	15.4	3.0	38.0	2.9	-4.5	3.4											
3550	36.0	15.5	3.1	37.9	3.0	-5.0	3.6	1										
3600	35.8	15.6	3.1	37.8	3.0	-5.3	3.8											
3700	35.5	15.7	3.2	37.7	3.1	-5.8	3.9	1										
3750	35.4	15.8	3.3	37.6	3.2	-6.1	3.9	1										
3800	35.2	15.9	3.4	37.6	3.2	-6.3	4.1											
3030	00.1	10.9	0.4	01.0	0.0	1 -0.0	4.1	1										

Figure D-5 2.4 GHz Head Tissue Equivalent Matter

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APPENDIX E: SAR SYSTEM VALIDATION

Per FCC KDB Publication 865664 D02v01r02, SAR system validation status should be documented to confirm measurement accuracy. The SAR systems (including SAR probes, system components and software versions) used for this device were validated against its performance specifications prior to the SAR measurements. Reference dipoles were used with the required tissue- equivalent media for system validation, according to the procedures outlined in FCC KDB Publication 865664 D01v01r04 and IEEE 1528-2013. Since SAR probe calibrations are frequency dependent, each probe calibration point was validated at a frequency within the valid frequency range of the probe calibration point, using the system that normally operates with the probe for routine SAR measurements and according to the required tissue-equivalent media.

A tabulated summary of the system validation status including the validation date(s), measurement frequencies, SAR probes and tissue dielectric parameters has been included.

SAP	From		Broho			Cond	Borm		CW VALIDATION				MOD. VALIDATION		
System	(MHz)	Date	SN	Probe C	al Point	(σ)	εr)	SENSITIVITY	PROBE LINEARITY	PROBE ISOTROPY	MOD. TYPE	DUTY FACTOR	PAR		
E	750	2/6/2019	3589	750	Head	0.891	43.677	PASS	PASS	PASS	N/A	N/A	N/A		
D	835	4/12/2019	3914	835	Head	0.935	42.549	PASS	PASS	PASS	GMSK	PASS	N/A		
L	1750	4/10/2019	7308	1750	Head	1.35	38.66	PASS	PASS	PASS	N/A	N/A	N/A		
E	1750	2/6/2019	3589	1750	Head	1.363	41.67	PASS	PASS	PASS	N/A	N/A	N/A		
Н	1900	7/16/2018	7409	1900	Head	1.425	40.935	PASS	PASS	PASS	GMSK	PASS	N/A		
-	0450	0/5/0040	0500	0450	Used	4.005	00,000	DA 60	DA GO	DAGO	OFDM/TD	DAGO	DAGO		
E	2450	2/5/2019	3589	2450	Head	1.825	39.830	PASS	PASS	PASS		PASS	PASS		
L	2450	4/29/2019	7308	2450	Head	1.82	37.749	PASS	PASS	PASS	DFDM/1D D	PASS	PASS		
L	750	11/6/2018	7308	750	Body	0.962	53.923	PASS	PASS	PASS	N/A	N/A	N/A		
I	835	8/8/2018	7406	835	Body	0.98	53.497	PASS	PASS	PASS	GMSK	PASS	N/A		
J	1750	2/7/2019	7488	1750	Body	1.509	51.017	PASS	PASS	PASS	N/A	N/A	N/A		
G	1900	8/10/2018	7410	1900	Body	1.567	52.239	PASS	PASS	PASS	GMSK	PASS	N/A		
к	2450	3/6/2019	7417	2450	Body	2.039	50.67	PASS	PASS	PASS	OFDM/TD D	PASS	PASS		

Table E-1 SAR System Validation Summary – 1g

NOTE: While the probes have been calibrated for both CW and modulated signals, all measurements were performed using communication systems calibrated for CW signals only. Modulations in the table above represent test configurations for which the measurement system has been validated per FCC KDB Publication 865664 D01v01r04 for scenarios when CW probe calibrations are used with other signal types. SAR systems were validated for modulated signals with a periodic duty cycle, such as GMSK, or with a high peak to average ratio (>5 dB), such as OFDM according to FCC KDB Publication 865664 D01v01r04.

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APPENDIX G POWER REDUCTION VERIFICATION

Per the May 2017 TCBC Workshop Notes, demonstration of proper functioning of the power reduction mechanisms is required to support the corresponding SAR configurations. The verification process was divided into two parts: (1) evaluation of output power levels for individual or multiple triggering mechanisms and (2) evaluation of the triggering distances for proximity-based sensors.

G.1 Power Verification Procedure

The power verification was performed according to the following procedure:

- 1. A base station simulator was used to establish a conducted RF connection and the output power was monitored. The power measurements were confirmed to be within expected tolerances for all states before and after a power reduction mechanism was triggered.
- 2. Step 1 was repeated for all relevant modes and frequency bands for the mechanism being investigated.
- 3. Steps 1 and 2 were repeated for all individual power reduction mechanisms and combinations thereof. For the combination cases, one mechanism was switched to a 'triggered' state at a time; powers were confirmed to be within tolerances after each additional mechanism was activated.

i ower measurement vernication wir i									
Mechanism(s)		Conducted F	Power (dBm)						
1st	Mode/Band	Un-triggered (Max)	Mechanism #1 (Reduced)						
Held-to-Ear	802.11b	19.23	16.25						
Held-to-Ear	802.11g	17.04	16.18						

G.2 WIFI Verification Summary

 Table G-1

 Power Measurement Verification WIFI

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