

**montena**

montena emc sa

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Registration number
 Numéro d'accréditation
 Akkreditierungsnummer

STS 024

Schweizerischer Prüfstellendienst
 Service suisse d'essai
 Swiss testing service



Report: Rapport: Bericht:	Electromagnetic compatibility		Report no: Rapport no: Bericht Nr:	15'890
Product name: Nom du produit: Produktname	EasyLink+		Mandate no: Mandat no: Auftrag Nr:	20098691
Serial no: No de série: Seriennummer:	17 (for radiated tests) 18, 87 (for conducted tests)	Model number: Numéro de modèle: Modellnummer:	V2	
Customer: Client: Kunde:	Phonak Communications SA Länggasse 17 CH-3280 Murten	Date of test: Date de l'essai: Prüfdatum:	April 3, 24 and 27, 2009	

Standards / Normes / Normen	Result Résultat Ergebnis
47 CFR, Part 74 (Subpart H - Low Power Auxiliary Stations: §§ 74.861 (e))	Pass

Test performed by
 Essai effectué par :
 Prüfer

Mr Erich Staub

Test report prepared by
 Rapport d'essai préparé par :
 Berichtersteller

Mr Erich Staub

Test report controlled and approved by
 Rapport d'essai contrôlé et approuvé par :
 Prüfbericht kontrolliert und genehmigt durch

Mr Jacques Ding

Rossens, October 8, 2009

(Issue Date / Date d'édition / Ausstelldatum)

V2009Feb25

Main language / Langue principale / Hauptsprache : english / français / deutsch

The present document results from tests on a specimen and does not prejudice to the conformity of all the manufactured products. - Le présent document résulte d'essais sur un spécimen. Il ne préjuge pas de la conformité de l'ensemble des produits fabriqués à l'objet essayé. - Dieser Bericht beinhaltet die Prüfergebnisse eines Mustergerätes. Es kann daraus nicht auf die Übereinstimmung der Seriegeräte mit dem Mustergerät geschlossen werden.

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1. Summary of test results / Résumé des résultats d'essais / Zusammenfassung der Prüfergebnisse

✓ Pass / Réussi / Bestanden

✗ Fail / Echoué / Nicht bestanden

∅ Not applicable to this product / Pas applicable à ce produit / Nicht anwendbar für dieses Produkt

— Not tested / Pas testé / Nicht geprüft

■ No requirements / Pas d'exigence / Keine Anforderung

§	Test Type / Type d'essai / Art der Prüfung	Result / Résultat / Ergebnis
6	Emission / Emission / Störaussendung	
6.1 6.3	RF power output Puissance RF HF Leistung CFR 47 §74.861 (e)(1)	✓
6.2	Modulation characteristics Caractéristiques de la modulation Modulationscharakteristiken CFR 47 §74.861 (e)(3)	✓
6.3	Frequency stability Stabilité de fréquence Frequenzstabilität CFR 47 §74.861 (e)(4)	✓
6.4	Operating bandwidth Bande passante Bandbreite CFR 47 §74.861 (e)(5) CFR 47 §74.861 (e)(6)	✓

2. Applied standards / Normes appliquées / Verwendete Normen

47 CFR Part 74	Code of Federal Regulations – Title 47 - Telecommunication, Part 74, Subpart H - Low Power Auxiliary Stations
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3. Client / Client / Kunde

Client name and address Nom et adresse du client Name und Adresse des Kunden	Phonak Communications SA Länggasse 17 CH-3280 Murten
Contact Person / Responsable / Kontaktperson	Mrs Neviana Nikoloski
Telephone / Téléphone / Telefon	+41 26 672 96 72
Fax / Télécopieur / Telefax	+41 26 672 96 77
E-mail / Courrier électronique / E-mail	info@phonak-communications.com
Mandate no / No. de mandat / Auftragsnr.	20098691

4. Equipment under test / Equipement à l'essai / Prüfling

4.1 Identification / Identification / Identifikation

Manufacturer name and address Nom et adresse du fabricant Name und Adresse des Herstellers	Phonak Communications SA Länggasse 17 CH-3280 Murten
--	--

Production country / Pays de fabrication / Ursprungsland	<i>Switzerland</i>
Brand name / nom de marque / Verkaufsmarke	<i>Phonak</i>
Product name / Nom du produit / Produktname	<i>EasyLink+</i>
Product description / Description du produit / Produktbeschreibung	<i>FM transmitter with built-in microphone and a one button user interface for people with hearing losses. Audio signals are captured with the microphone or connected directly to the audio input of the adaptor and transmitted via FM and the neck loop antenna to the hearing aids. The FM channels can be changed with a pen-push button.</i>
Model number / Numéro de modèle / Modellnummer	<i>V2</i>
Serial no / No. de série / Seriennummer	<i>17 (for radiated tests) 18, 87 (for conducted tests)</i>
Software version / Version du logiciel / Softwareversion	<i>0.3.0</i>
Highest frequency / Fréquence la plus élevée / Höchste Frequenz	<i>Carrier between 174 MHz to 216 MHz</i>
Supply / Alimentation / Speisung	<i>U = 3.7 VDC internal Lithium-Ion battery</i>
Technical documentation Documentation technique Technische Dokumentation	<i>None. The equipment is completely identified by its serial no. according to ISO 9001.</i>

4.2 Pictures of the EUT / Photos de l'EST / Fotos des Prüflings

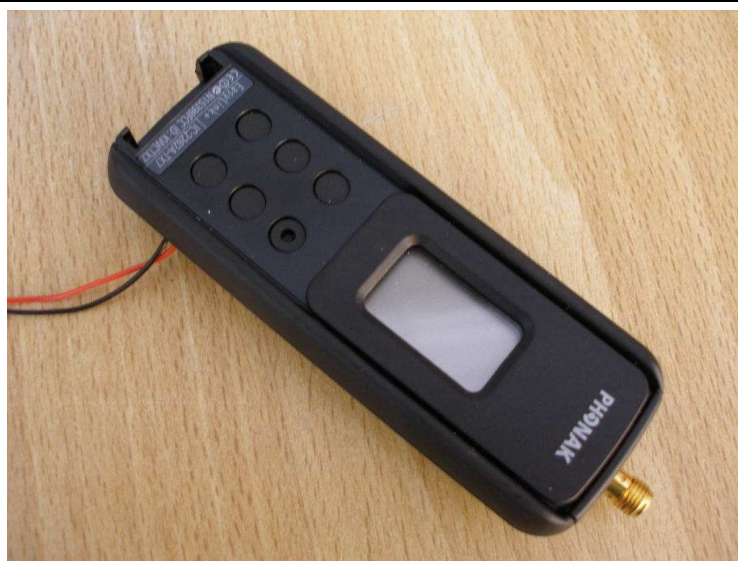
EasyLink+ with adaptor and external AC/DC adaptor



*EasyLink+ for radiated measurements:
17 for §§ 6.1*



*EasyLink+ for radiated measurements:
markings
17 for §§ 6.1*



*EasyLink+ for conducted measurements:
18 for §§ 6.2, 6.3
87 for §§ 6.4*



EasyLink+ for conducted measurements:
 markings
 18 for §§ 6.2, 6.3
 87 for §§ 6.4



Adaptor



Power supply



4.3 Classification / Classification / Klassierung

None

4.4 Ports / Accès / Anschlüsse

Port / Accès / Anschluss	Cable / Câble / Kabel			Remark / Remarque / Bemerkung
	Max. length / Longueur max. / Max. Länge	Type / Type / Typ	Screen / Blindage / Schirm	
Neck loop antenna	1 m	1 wire	none	Integral part of equipment under test
External AC/DC adaptor	1.85 m	1 wires	none	Connected to EasyLink+ via the adaptor
External audio	2 m	3 wires	none	Connected to EasyLink+ via the adaptor

4.5 Modifications / Modifications / Angebrachte Änderungen

None

5. Test conditions / Conditions d'essai / Testbedingungen**5.1 Climatic conditions, location and date / conditions climatiques, lieu et date / klimatische Bedingungen, Ort und Datum**

Location / Lieu / Ort:	Date / Date / Datum:	Temp. / Temp. / Temp.:	Pressure / Pression / Druck [QFF]:	Rel. humidity / Humidité rel. / Rel. Luftfeuchtigkeit:
montena emc sa CH-1728 Rossens	April 3, 2009	23 °C	1022 hPa	35 %
	April 24 and 27, 2009	22 - 23 °C	1008 – 1014 hPa	30 - 36 %

5.2 Test facility and methodology / Lieu d'essai et méthodologie / Prüfort und Methodik

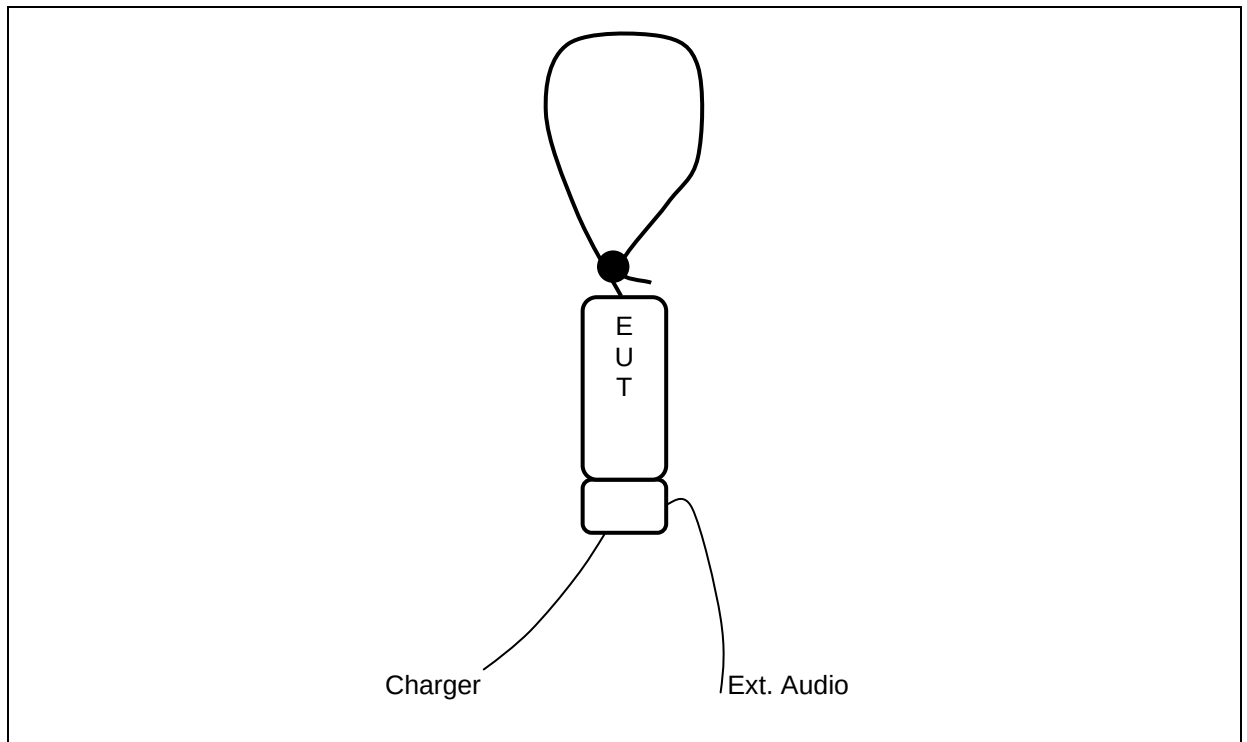
The alternate test site (ferrite chamber) is accepted by FCC (Reg. No. 0009508433). Conducted and radiated measurements are performed according to the ANSI C63.4 (2003) procedure.
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5.3 Attendant persons / Personnes présentes / Anwesende Personen**Test Engineer(s) / Ingénieur(s) d'essai / Prüfsingenieur(e) :**

Mr Erich Staub

Other(s) / Autre(s) / Andere :

Name / Nom / Name	Company / Société / Firma
Mr Martin Brügger	Phonak Communications SA

5.4 Test configuration / Configuration d'essai / Prüfkonfiguration**5.5 Operating conditions / Conditions de fonctionnement / Betriebszustand**

Continuously transmitting on one of the following frequencies: 214 MHz and 176 MHz

5.6 Auxiliary equipment / Matériel auxiliaire / Zusatzgeräte

The following pieces of equipment are used for the monitoring of the EUT or are necessary for the EUT but they are not tested with the EUT / Les équipements suivants servent à la surveillance de l'EST ou sont indispensables au fonctionnement de celui-ci mais ne font pas partie de l'essai / Folgende Geräte werden für die Überwachung des Prüflings gebraucht oder sind notwendig für die korrekte Funktion. Sie gehören jedoch nicht zum Prüfling.

None

6. 47 CFR Parts 74

6.1 RF power output

Standard: United States: 47 CFR "Code of Federal Regulations" – Telecommunication

☐ Part 2, Subpart J: Certification: §2.1046

☐ Part 95, Subpart E: Technical regulations: §95.639(e)

Limit for LPRS = 100 mW = 20 dBm

☒ Part 74, Subpart H: Low power auxiliary stations: §74.861(e)(1)

Limit for LPAS = 50 mW = 17 dBm

Distance: ☐ 30 m ☐ 10 m ☒ 3 m ☐

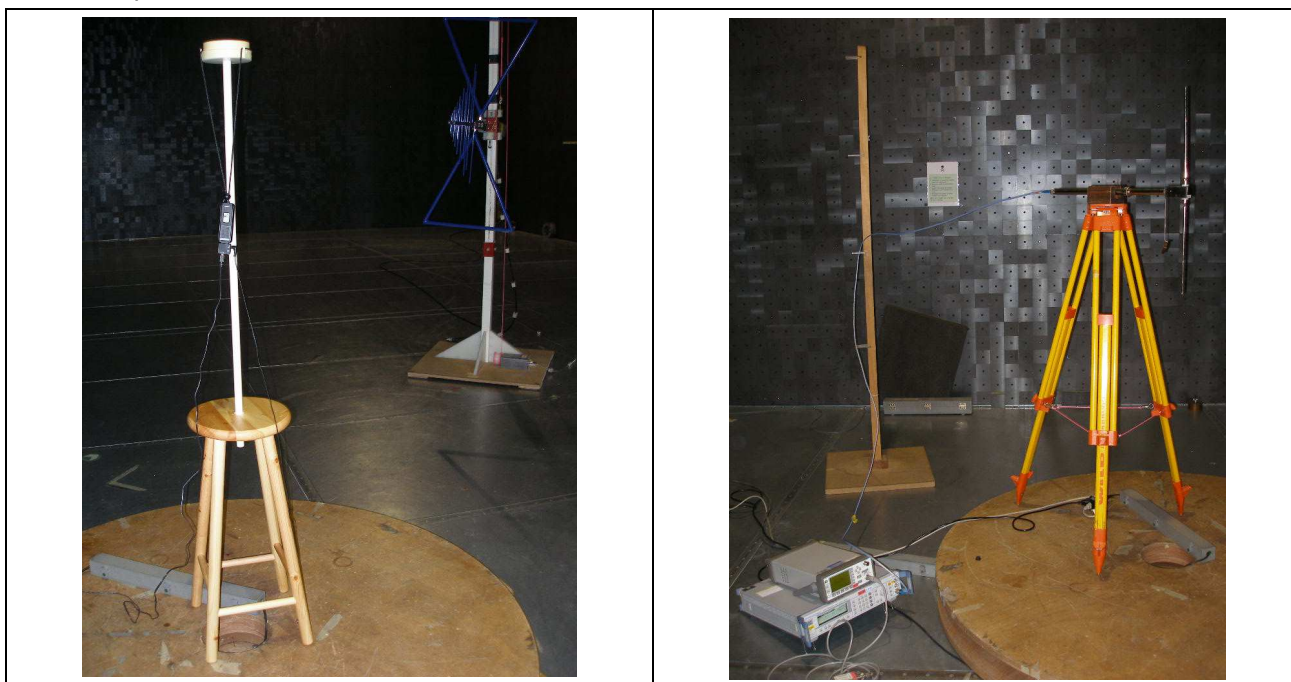
Test site: ☐ anechoic chamber (foam) ☒ anechoic chamber (ferrites)

Position of EUT: 1.5 m (height of the equipment under test above floor)

Meas. uncertainty: ± 6 dB (30 - 300 MHz)

Test method: The antenna is moved from 1 to 4 m in height. The turning table is operated through 360° during the measurements. The recordings are carried out taking into account the maximum value of all the disturbances appearing while the apparatus is under test. The device under test has a specific type of antenna and, therefore, the effective radiated power (ERP) is measured instead of the output power. The ERP is defined as the equivalent radiated power of a dipole.

Test set-up:



Remarks: ---

Test equipment:

Spectrum analyser	☐ 88-14	☐ 94-24	☐ 02-06	☒ 03-45	☐ 05-39	☐ 07-53
Antenna (bilog)	☒ 94-03	☐ 05-38	☐			
HF-wattmeter	☐ 95-97	☐ 01-15	☐ 01-17	☒ 03-07	☐ 04-96	☐ 05-20
Thermocouple detector	☐ 92-03	☐ 05-74	☐ 05-88	☒ 07-03	☐	
Substitution antenna	☒ 89-01	☐ 00-52	☐			
Frequency generator	☐ 88-23	☐ 00-42	☐ 03-39	☐ 04-03	☐ 04-89	☒ 05-78
Cables	☐ 06-00	☒ 06-01	☐			

Result: ☒ pass ☐ fail ☐ not applicable ☐ not tested

Results of the testClient: *Phonak Communications SA*Apparatus: *EasyLink+*Operating mode:

- Normal operation without audio input signal*

Cables connected to the EUT:

- Charger*
- Ext. audio*

Remarks: *---*

f [MHz]	Measurement with EUT		Power at substitution		Meas. with P [dBm]	Parameters of substitution ant.		Result			Remarks
	E [dBm]	preamp [dB]	P [dBm]	factor [dB]		gain [dB]	att. Cable [dB]	corr. [dB]	P ERP [dBm]	P ERP [W]	
214.0000	-13.0	0.0	-0.06	0	-32.3	-10	0	22.24	9.24	8.39 mW	---

Date of test: *April 3, 2009*
Operator: *Erich Staub*

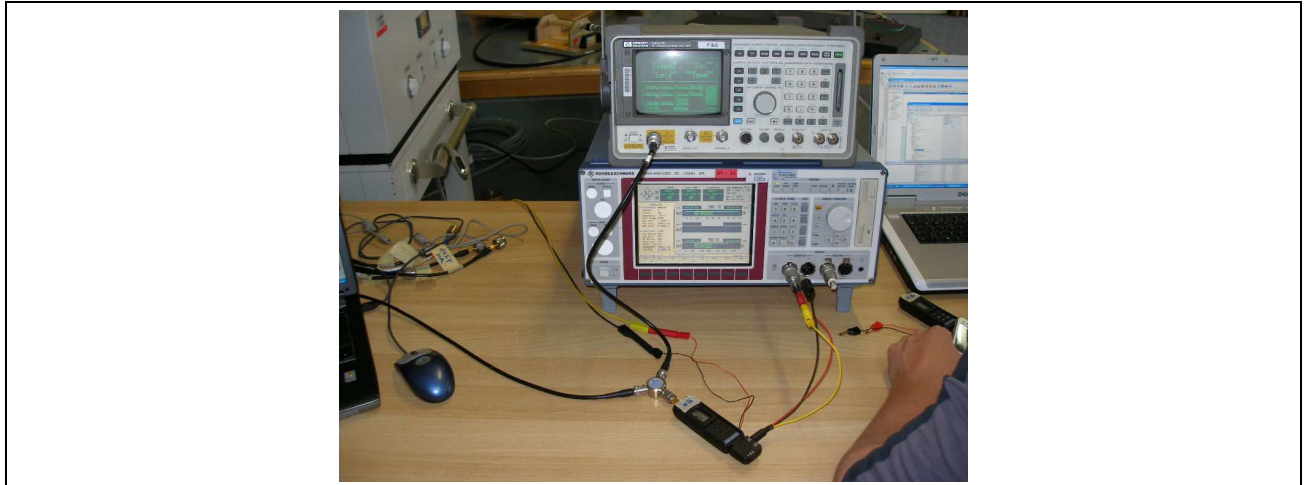
6.2 Modulation characteristics

Standard: United States: 47 CFR "Code of Federal Regulations" - Telecommunication
☐ Part 2, Subpart J: Certification: §2.1047
☒ Part 74, Subpart H: Low power auxiliary stations: §74.861(e)(3)
 Limit for FM deviation $\leq \pm 75$ kHz

Test site: ☐ anechoic chamber (foam) ☐ open test site
☐ anechoic chamber (ferrite) ☒ laboratory

Test method: Measurement of the frequency at the antenna connector or a test fixture.

Test set-up:



Remarks: ---

Test equipment:

RF communication test set	☐ 88-23	☐ 94-06	☐ 00-42	☐ 03-39	☒ HP8920B (Phonak)
Générateur LF	☒ 07-25 (UPL)				
Oscilloscope numérique	☐ 90-14	☐ 93-85	☐ 93-86	☐ 01-20	☐ 04-06 ☐ 04-50
	☐ 05-22	☐ 05-28			
Power divider	☒ 6 dB				
Power supply	☒ 04-31				

Result: ☒ pass ☐ fail ☐ not applicable ☐ not tested

Results of the testClient: *Phonak Communications SA*Apparatus: *EasyLink+*

Remarks:

- *TX = 214 MHz*
- *Audio signal injected on both channels (right and left) simultaneously*
- *Audio detector = Peak +-Max*

Frequency response of audio circuit:

An audio signal at 1 kHz is adjusted for a 100 % rated FM deviation (= 16 mV rms). While maintaining the same amplitude, the frequency is varied. The FM deviation is measured and recorded at several frequencies in order to determine the frequency response.

Audio [kHz]	Dev. [kHz]	Audio [kHz]	Dev. [kHz]	Audio [kHz]	Dev. [kHz]	Audio [kHz]	Dev. [kHz]
0.1	3.9	0.9	4.1	4.0	3.9	8.0	0.1
0.2	4.2	1.0	4.1	4.5	3.8	9.0	0.1
0.3	4.2	1.2	4.1	5.0	3.8	-	-
0.4	4.2	1.5	4.1	5.5	3.8	-	-
0.5	4.2	2.0	4.1	6.0	0.4	-	-
0.6	4.3	2.5	4.0	6.5	0.1	-	-
0.7	4.1	3.0	4.0	7.0	0.1	-	-
0.8	4.1	3.5	3.9	7.5	0.1	-	-

Limit [kHz]	Remarks:	Pass	
		Yes	No
±75	---	☒	☐

Modulation limiting of audio input:

An audio signal at different frequencies is adjusted for a 100 % rated FM deviation (= 16 mV rms). While maintaining the same frequency, the audio level is varied. The FM deviation is measured and recorded at different audio levels in order to determine the modulation limiting.

Audio signal level [mV rms]	FM Deviation [kHz]			
	200 Hz	1000 Hz	3500 Hz	8000 Hz
4	1.3	1.4	1.3	0.1
5	1.6	1.7	1.6	0.1
10	3.2	3.3	3.2	0.1
20	4.3	4.2	4.0	0.1
50	4.4	4.3	4.1	0.1
100	4.5	4.4	4.1	0.1

Limit [kHz]	Remarks:	Pass	
		Yes	No
±75	---	☒	☐

Date of test: *April 27, 2009*
 Operator: *Erich Staub*

6.3 Frequency and power level stability

Standard: United States: 47 CFR "Code of Federal Regulations" – Telecommunication
☐ Part 2, Subpart J: Certification: §2.1055
☐ Part 95, Subpart E: Technical regulations: §95.629(d)(2)
☐ Part 95, Subpart E: Technical regulations: §95.639(e)
Limit for LPRS = 100 mW = 20 dBm
☒ Part 74, Subpart H: Low power auxiliary stations: §74.861(e)(1)
Limit for LPAS = 50 mW = 17 dBm
☒ Part 74, Subpart H: Low power auxiliary stations: §74.861(e)(4)
Limit for LPAS = 0.005 % = 50 ppm

Test site: ☐ anechoic chamber (foam) ☐ shielded room
☐ anechoic chamber (ferrites) ☒ laboratory
☐ open test site ☐

Test method: Measurement of the frequency and the power level at the antenna connector or at the test fixture.

Test set-up:



Remarks: ---

Test equipment:

Spectrum analyser	☐ 88-14	☐ 94-24	☒ 02-06	☐ 03-45	☐ 05-39	☐ 07-53
Multimeter	☐ 89-07	☒ 90-15	☐ 92-25	☐ 94-51	☐ 02-03	☐ 03-22
	☐ 04-47	☐ 04-104	☐ 04-105	☐		
Temperature chamber	☒ 06-66					
Temperature probe	☒ 91-11	☐ 03-05	☐ 05-34			
Attenuator	☒ 05-81					
Variable transformer	☐ 75-04	☐				
Power supply	☐ 99-04	☒ 04-31				
Cables	☒ RG 223 2m					

Result:	☒ pass	☐ fail	☐ not applicable	☐ not tested
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Results of the testClient: *Phonak Communications SA*Apparatus: *EasyLink+*Operating mode: *Normal operation without audio input signal*

Cables connected to the EUT:

- *DC supply*
- *Temporary antenna cable*

Remarks:

- *Measured on temporary antenna connector*
- *RBW = VBW = 3kHz; Span = 100 kHz; ST = 80 ms; RefLev = 10 dBm; Detector = Peak; Trace mode = Peak hold; Nb points = 8001*
- *Temperature chamber switched off during measurement to avoid acoustic coupling to microphones*

Variation of the temperature

Requirement:

 $\Delta f < 50$ ppm and $P < 50$ mW (17 dBm) with temperature varied from -30° to $+50^{\circ}$ in steps of 10 degrees.

Temp [°C]	Frequency [MHz]	Error [ppm]	Limit [ppm]	P [dBm]	P ERP [dbm]	Limit [dBm]	Remarks	Pass	
								Yes	No
-30	213.999850	1.5	50	7.86	8.91	17	---	☒	☐
-20	213.999887	1.3	50	7.94	8.99	17	---	☒	☐
-10	213.999950	1.0	50	8.03	9.08	17	---	☒	☐
0	213.999937	1.1	50	8.08	9.13	17	---	☒	☐
10	213.999962	0.9	50	8.09	9.15	17	---	☒	☐
23.8	214.000162	ref	ref	8.19	9.24	17	---	☒	☐
30	214.000000	0.8	50	8.10	9.16	17	---	☒	☐
40	213.999950	1.0	50	8.10	9.16	17	---	☒	☐
50	213.999975	0.9	50	8.13	9.18	17	---	☒	☐

Variation of the supply voltage

Requirement:

 $\Delta f < 50$ ppm and $P < 50$ mW (17 dBm) with supply voltage varied from 85% to 115%

Volt [%]	Volt [V]	Frequency [MHz]	Error [ppm]	Limit [ppm]	P [dBm]	P ERP [dbm]	Limit [dBm]	Remarks	Pass	
									Yes	No
85	3.145	214.000000	0.8	50	8.17	9.219	17	---	☒	☐
100	3.7	214.000162	ref	ref	8.19	9.24	17	---	☒	☐
115	4.255	213.999950	1.0	50	8.17	9.219	17	---	☒	☐

Date of test: *April 24, 2009*
 Operator: *Erich Staub*

6.4 Occupied bandwidth

- Standard: United States: 47 CFR "Code of Federal Regulations" – Telecommunication
☐ Part 2, Subpart J: Certification: §2.1049
☐ Part 95, Subpart E: Technical regulations: §95.635(c)(1)
☒ Part 74, Subpart H: Low power auxiliary stations: §74.861(e)(5)
 BW for LPAS ≤ 200 kHz
- Test site: ☐ anechoic chamber (foam) ☐ shielded room
☐ anechoic chamber (ferrites) ☒ laboratory
- Test precision: ± 1.5 dB
- Test requirements: Emissions shall be attenuated below the unmodulated carrier in accordance with the following:
- On any frequency removed from the operating frequency by more than 50 percent up to and including 100 percent of the operating bandwidth: at least 25 dB;
 - On any frequency removed from the operating frequency by more than 100 percent up to and including 250 percent of the authorized bandwidth: at least 35 dB;
 - On any frequency removed from the operating frequency by more than 250 percent of the authorized bandwidth: at least $43 + 10 \log_{10}$ (mean output power in watts) dB
- Test method: The audio signal input was set to 16 mV rms (= FM deviation max). For different input frequencies the fundamental frequency was plotted.

Test set-up:



- Remarks:
- For power levels below 168 mW the formula given above for frequencies more than 250 percent away from the centre frequency is smaller than 35 dB (value for frequencies between 100 percent to 250 percent away from the centre frequency). Therefore 35 dB is applied for all frequencies more than 250 percent away from the center frequency.
 - 4.3 kHz FM deviation = -35.9 dBV = 16 mV rms (audio input); Quasi Peak measured with R&S UPL = -4.69 dBV (quasi peak) for (-35.9 dBV – 8 dB); Quasi Peak measured with R&S UPL = 1.99 dBV (quasi peak) for (-35.9 dBV + 12 dB); Noise with amplitude of 28.6 mVrms = -28 dBV (quasi peak)

Test equipment:

- | | | | | | | |
|---------------------------|--|--------------------------------|--------------------------------|---|--------------------------------|--------------------------------|
| Spectrum analyser | ☐ 88-14 | ☐ 90-26 | ☐ 94-24 | ☒ 02-06 | ☐ 03-45 | ☐ 03-57 |
| RF communication test set | ☒ HP8920B (Phonak) | | | | | |
| Signal generator | ☒ 07-25 (UPL) | | | | | |
| Power supply | ☒ 04-31 | | | | | |
| Power divider | ☒ 6 dB | | | | | |

Result:	☒ pass	☐ fail	☐ not applicable	☐ not tested
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Measurement Type : Power Interference
 Port : Temporary antenna connector
 Clamp position :



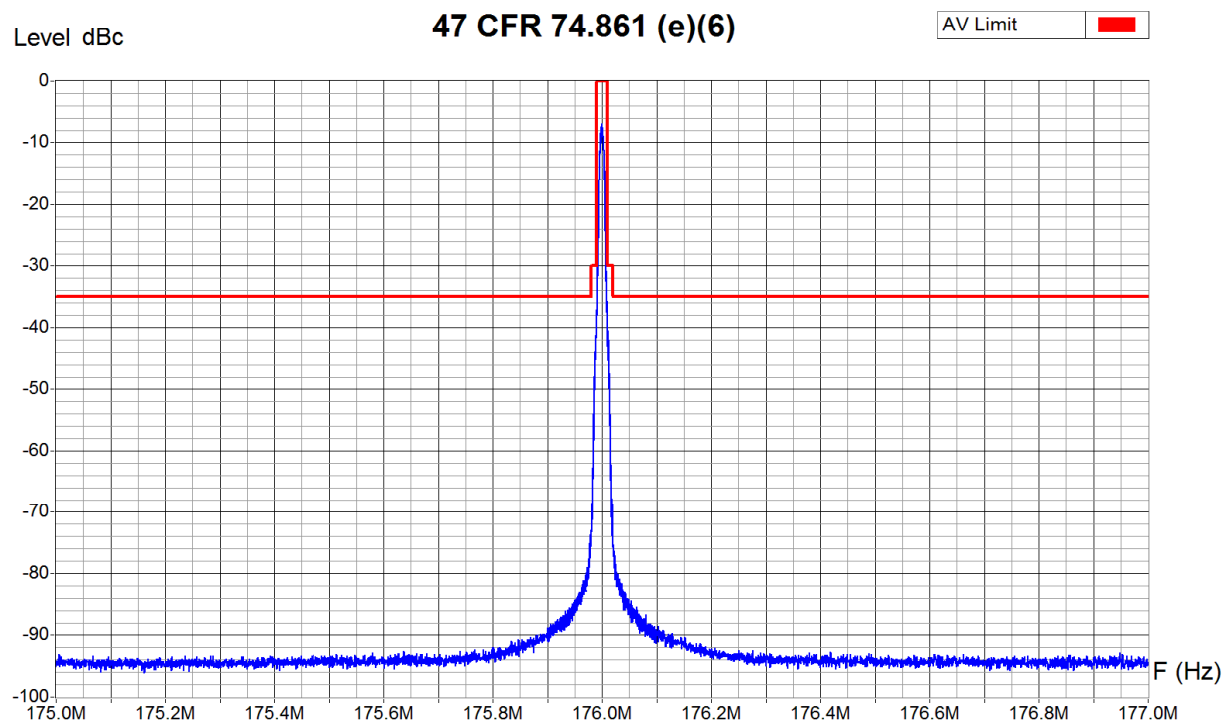
Equipment Under Test : EasyLink+

Set-Up :

Operating Conditions : Tx = 176 MHz; External audio signal on both channels simultaneously

Remarks : White noise with filter

Detector = AVG rms; Ref lvl = 95 dBuV; int Att = 5 dB; RBW = 1 kHz;
 VBW = 10 kHz; Sweep = 60 s; Nb points = 2001



Zone	175 MHz - 175.90	175.90 MHz -
Video Bandwidth	10 KHz	10 KHz
Resol Bandwidth	1 KHz	1 KHz

Operator: E. Staub
 Date/Time: 27.04.2009 15:43
 Filename:
 20098691_FCC74_BW_002b.png/
 .txt

Measurement Type : Power Interference
 Port : Temporary antenna connector
 Clamp position :



Equipment Under Test : EasyLink+

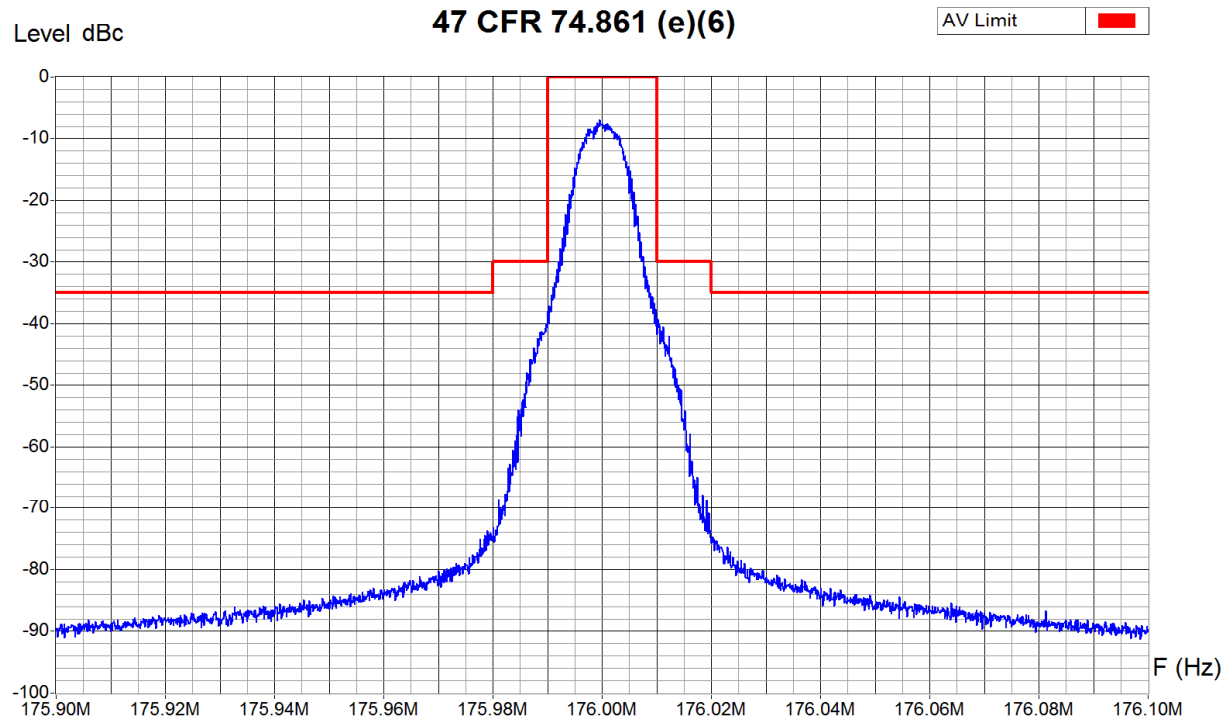
Set-Up :

Operating Conditions : Tx = 176 MHz; External audio signal on both channels simultaneously

Remarks : White noise with filter

Detector = AVG rms; Ref lvl = 95 dBuV; int Att = 5 dB; RBW = 1 kHz;

VBW = 10 kHz; Sweep = 60 s; Nb points = 2001



Zone	175.90 MHz -
Video Bandwidth	10 KHz
Resol Bandwidth	1 KHz

Operator: E. Staub
 Date/Time: 27.04.2009 15:43
 Filename:
 20098691_FCC74_BW_002n.png/
 .txt

7. Prospectus of the product / Prospectus du produit / Produktprospekt

EasyLink+

Technical Data



EasyLink+ features

- Dynamic FM
- SoftLanding technology
- Audio input for wireless TV and audio enjoyment
- Fast-charging battery
- GPS mode

Product description

- A** On/Off button
 - Microphone default setting
 - Zoom microphone setting (Configurable with Phonak's FM SuccessWare)
- B** High quality microphone array
- C** Advanced signal processing:
 - Dynamic FM
 - SoftLanding technology
 - High resolution multi-channel noise cancellation
- D** Lavalier cord with antenna
 - For operating ranges up to 50 feet (15 meters) indoors, and 170 feet (50 meters) outdoors
- E** Retention clip
- F** Easy to read LCD display

Attachable interface with connections for:

- G** 3.5 mm socket for external audio sources (e.g. TV)
- H** mini-USB socket for power supply and programming cable
- I** 2.5 mm socket external microphone (MM8 and iBoom)

Relevant internet pages

Your online comprehensive FM support tool for schools
www.eSchoolDesk.com

Latest set-up tips for FM systems in combination with hearing instruments and Cochlear implants.
www.phonak.com/FM_Configurator

Your online FM knowledge base
www.FMELibrary.com

Your online FM counseling support tool
www.FMCounselWare.com

EasyLink+ is a super-simple wireless microphone with just one button for On/Off switching. Like SmartLink+ and ZoomLink+ it runs on the Dynamic FM platform, the new global FM standard. Hearing care professionals can reprogram its exact microphone behavior to meet the exact needs of the listener, without challenging the user with too many choices.

Zoom (On/Off button)



EasyLink+ features only one button – the On/Off button – and its default microphone setting is Zoom mode. This is exactly the same mode as that enabled by pressing the middle button on the SmartLink+ or ZoomLink+. This standard setting can be changed using Phonak's FM SuccessWare.



EasyLink+

General data

Type:	Dynamic FM transmitter
Dimensions:	L x W x H: 98 x 35 x 18 mm (3.8 x 1.4 x 0.7 inches) (without interface and lavalier cord)
Weight:	56 g
Operating temperature range:	-10°C to +60°C
Humidity:	20-75%

HF characteristics

Frequency range:	169.4 – 176 MHz (Band HA) 214.0 – 220.0 MHz (Band NB)
Frequency switching:	Integrated digital frequency synthesizer, max. 40 programmable channels
Frequency stability:	Better than ± 1 kHz
Modulation:	FM (narrow-band), maximum frequency deviation $\Delta f_{dev} < 6$ kHz
Antenna:	Lavalier cord antenna for maximum operating range (up to 170 feet/ 50m)
Signal-to-noise ratio: (microphone setting: Omni)	> 45 dB at $\Delta f_{dev} \geq 4$ kHz and $f_{mod} = 1$ kHz

EasyLink+ combined with ML9i, ML10i, ML11i, ML12i, MLxi or any other Dynamic FM receiver from Phonak leads to a significantly higher signal to noise ratio.

Audio characteristics

Audio frequency range:	100-6000 Hz
Microphone sensitivity: (Omni mode)	97 dB SPL at $f_{mod} = 1$ kHz for $\Delta f_{dev} = 4.0$ kHz (100% modulation) 70 dB SPL at $f_{mod} = 1$ kHz for $\Delta f_{dev} = 3.0$ kHz
Distortion: (Omni mode)	THD $< 0.2\%$ at 70 dB SPL with $f_{mod} = 1$ kHz for $\Delta f_{dev} = 3.0$ kHz

Battery

Type:	Lithium Polymer 3.7 VDC
Dimensions:	Length: 37 mm Width: 27 mm Height: 6 mm
Capacity:	525 mAh
Operating time:	10 hours
Charging temperature range:	-10°C - +45°C
Charging time with charger:	100% in 2 hours, 80% in 1 hour

Power supply

Type:	Dedicated EasyLink+ charger
Connector:	mini-USB
Secondary voltage:	5.0 VDC
Current (min.):	500 mA
Important notice:	It is recommended to use only the original Phonak charging unit.
Fast-charge:	80% charged within an hour Fully charged in two hours The battery cannot be over-charged The adapter may become warm during charging.

Built-in remote control for Phonak hearing instruments

(only for automatic HI Program Setting at EasyLink+ ON/OFF switching)

Frequency:	40.96 kHz
Modulation:	CPFSK
Operating range:	< 50 cm

Standards

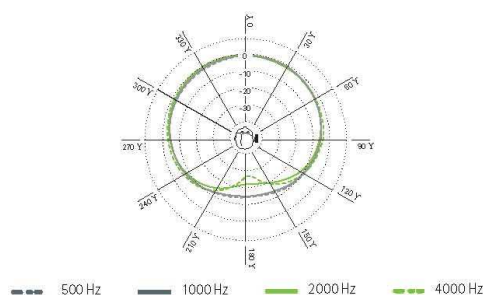
Radiocom:	EN 300.422-1,-2 EN 300.330-1,-2 EN 300.328 CFR 47, part 95, part 15C
EMC:	EN 301.489-3, -9, 17
Electric Safety:	EN 60950-1

Dynamic FM System data

Adaptive FM Advantage (AFMA), Ambient noise level ≥ 73 dB SPL

Dynamic FM advantage over hearing instrument:	25 dB
Dynamic FM advantage over traditional FM system:	15 dB
Wireless sub-audio data-link: Frequency range:	Above the audio band
Operating range:	As FM operating range

Zoom



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