TEKNİK DATA

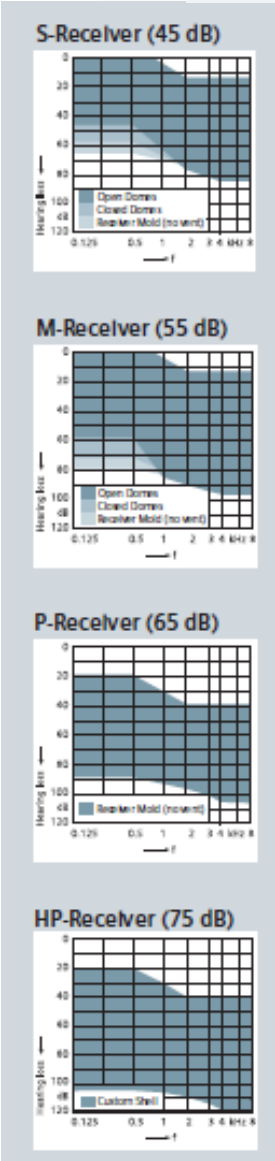
SIEMENS – Pure Carat 301 XCL Dijital programlanabilir işitme cihazı

Açıklama

- Hafif, Orta - ileri dereceli işitme kayıplarında kullanılan kulak arkası RIC işitme cihazı
- 8 kanallı,20 bantlı (8 frekans bandı, 12 kompresyon bandı)

Best Sound Teknolojisi Odyolojik Özellikleri

- Feedback yönetimi
- Data learning (veri öğrenme)
- Çift mikrofon
- VC manuel ve otomatik ses kontrol
- Gürültü azaltma
- E2E kablosuz 2.0 ile binauralsenkronizasyon
- eWindScreen™, rüzgargürültüsüazaltmasistemi
- Düşük frekansta maksimum kazanç (MPO)
- AGC (otomatik kazanç kontrol)
- TC (Ses tını kontrol)
- PC (yüksek frekansta maksimum çıkış)



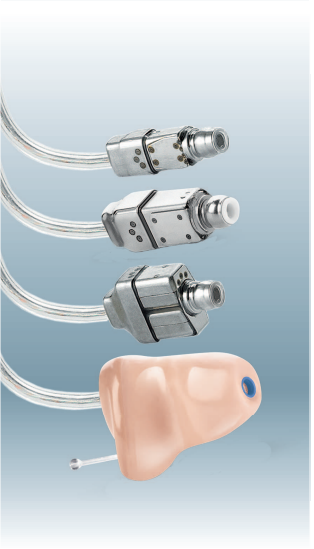
Standart Özellikler

- Program değişiminde uyaran program seçme düğmesi
- Autophone,telecoil,
- Çınlama fonksiyonu
- Nano kaplama dış yüzey
- Açma kapama düğmeli pil kilit yuvası
- Sağ ve sol kulak için değişik boyutlarda mevcut olan, 4 farklı amplifikasyon seviyeli, ergonomik şekilli hoparlör

Aksesuarlar

- eCharger
- KablosuzsistemTek™
- UzaktankontrolProPocket™
- UzaktankontrolePen™
- ConnexxLinkTMKablosuzprogramlama

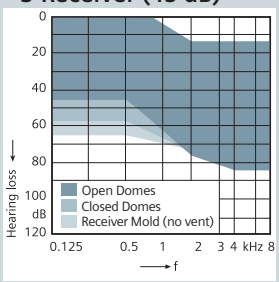
SIEMENS



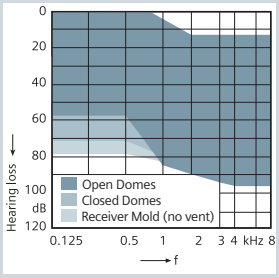
Technical Data

Pure Carat 301 XCL

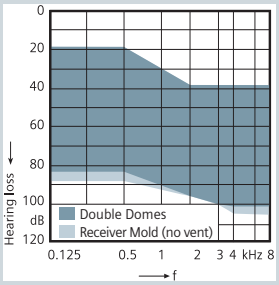
S-Receiver (45 dB)



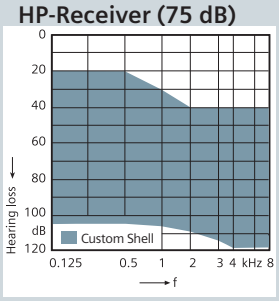
M-Receiver (55 dB)



P-Receiver (65 dB)



HP-Receiver (75 dB)



Description

- Very small Receiver-in Canal (RIC) hearing system appropriate for up to severe hearing losses
- Highly flexible 8 channel digital signal processing and programming

Audiological features with BestSound Technology

- New flexible compression system with 2 kneepoints
- FeedbackStopper
- DataLearning™
- 8 channel AGC-I and broadband AGC-O system
- Automatic and adaptive directional microphone system
- Speech and Noise Management
- SoundSmoothing™ transient noise reduction
- Binaural synchronization with e2e wireless 2.0
- eWindScreen™, wind noise reduction system

Standard Features

- Slider with alert tones for program or volume change
- Ergonomically shaped receiver units in 4 different amplification levels, available in different sizes for the left and right ear
- AutoPhone
- Tinnitus function
- Telecoil
- Battery compartment with on/off function
- Nanocoated housing

Accessories

- eCharger
- Tek™ wireless enhancement system
- miniTek™ wireless enhancement system
- ePen™ remote control
- ProPocket™ remote control
- ConnexxLink™ for wireless programming

Data Sheet

www.siemens.com/hearing

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Pure Carat 301 XCL · Technical Data

	S-Receiver (measured with Closed Dome)		M-Receiver (measured with Closed Dome)	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
	ANSI S3.22-2003 IEC 60118-7:2005	IEC 118-0/A1	ANSI S3.22-2003; IEC 60118-7:2005	IEC 118-0/A1
Output Sound Pressure Level				
at 1.6 kHz	–	107 dB	–	122 dB
Peak	108 dB	117 dB	119 dB	129 dB
HFA[1]-OSPL 90	101 dB	–	114 dB	–
Gain				
Full-on Gain (FOG) at 1.6 kHz	–	38 dB	–	52 dB
Full-on Gain (Peak)	45 dB	54 dB	55 dB	65 dB
HFA-FOG	37 dB	–	46 dB	–
Reference Test Gain	24 dB	32 dB	37 dB	45 dB
Frequency Range (*DIN 45605)				
Low frequency limit	110 Hz	200 Hz*	120 Hz	180 Hz*
High frequency limit	7600 Hz	7800 Hz*	8500 Hz	9400 Hz*
Total Harmonic Distortion				
500 Hz	1 %	1 %	1 %	1 %
800 Hz	1 %	1 %	1 %	1 %
1600 Hz	1 %	1 %	1 %	1 %
Equivalent Input Noise	19 dB	18 dB	19 dB	18 dB
Inductive Coil Sensitivity				
MASL[2] (1 mA/m) at 1.6 kHz	–	69 dB	–	80 dB
HFA MASL (1 mA/m)	65 dB	–	76 dB	–
HFA SPLITS[3] (left/right)	81/80 dB	–	94/93 dB	–
RSETS[4] (left/right)	-3/-4 dB	–	-3/-4 dB	–
AGC-O (fully activated)				
Attack time	5 ms	–	5 ms	–
Release time	110 ms	–	110 ms	–
Battery-Type 13				
Battery Voltage	1.3 V	1.3 V	1.3 V	1.3 V
Battery current drain	0.8 mA	0.8 mA	1.0 mA	1.0 mA
Battery life (Cell Zinc Air)	~280 h	~280 h	~220 h	~220 h
IRIL[5] IEC 118-13:2004 (bystander)				
800-960 MHz	< -10 dB			
1400-2000 MHz	< -10 dB			
ANSI C63.19	M4/T4			
Directivity Index at 2.5 kHz	2.8			

[1]HFA= High Frequency Average [2]MASL= Magneto Acoustical Sensitivity Level [3]SPLITS=Coupler SPL for an Inductive Telephone Simulator [4]RSETS=Relative Simulated Equivalent Telephone Sensitivity [5]IRIL=Input Related Interference Level

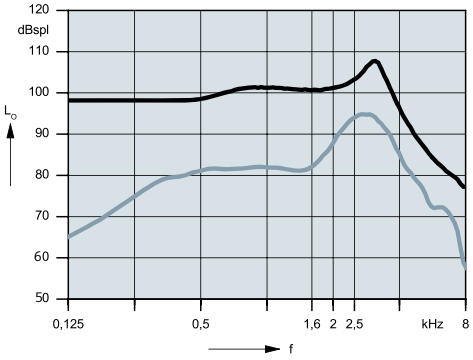
Pure Carat 301 XCL · Technical Data

	P-Receiver (measured with Receiver Mold)		HP-Receiver (measured with Custom Shell)	
	2 ccm coupler	Ear simulator	2 ccm coupler	Ear simulator
	ANSI S3.22-2003 IEC 60118-7:2005	IEC 118-0/A1	ANSI S3.22-2003; IEC 60118-7:2005	IEC 118-0/A1
Output Sound Pressure Level				
at 1.6 kHz	–	125 dB	–	134 dB
Peak	122 dB	132 dB	130 dB	138 dB
HFA[1]-OSPL 90	116 dB	–	123 dB	–
Gain				
Full-on Gain (FOG) at 1.6 kHz	–	62 dB	–	80 dB
Full-on Gain (Peak)	65 dB	75 dB	75 dB	85 dB
HFA-FOG	55 dB	–	66 dB	–
Reference Test Gain	39 dB	48 dB	46 dB	59 dB
Frequency Range (*DIN 45605)				
Low frequency limit	110 Hz	160 Hz*	100 Hz	270 Hz*
High frequency limit	8500 Hz	9100 Hz*	7400 Hz	8066 Hz*
Total Harmonic Distortion				
500 Hz	1 %	1 %	1 %	1 %
800 Hz	1 %	1 %	1 %	2 %
1600 Hz	2 %	1 %	1 %	1 %
Equivalent Input Noise	19 dB	20 dB	19 dB	16 dB
Inductive Coil Sensitivity				
MASL[2] (1 mA/m) at 1.6 kHz	–	91 dB	–	109 dB
HFA MASL (1 mA/m)	85 dB	–	96 dB	–
HFA SPLITS[3] (left/right)	95/94 dB	–	104/103 dB	–
RSETS[4] (left/right)	-4/-5 dB	–	-2/-3 dB	–
AGC-O (fully activated)				
Attack time	5 ms	–	5 ms	–
Release time	110 ms	–	110 ms	–
Battery-Type 13				
Battery Voltage	1.3 V	1.3 V	1.3 V	1.3 V
Battery current drain	0.9 mA	0.9 mA	1.0 mA	1.1 mA
Battery life (Cell Zinc Air)	~250 h	~250 h	~220 h	~200 h
IRIL[5] IEC 118-13:2004 (bystander)				
800-960 MHz	< -10 dB			
1400-2000 MHz	< -10 dB			
ANSI C63.19	M4/T4			
Directivity Index at 2.5 kHz	2.8			

[1]HFA= High Frequency Average [2]MASL= Magneto Acoustical Sensitivity Level [3]SPLITS=Coupler SPL for an Inductive Telephone Simulator [4]RSETS=Relative Simulated Equivalent Telephone Sensitivity [5]IRIL=Input Related Interference Level

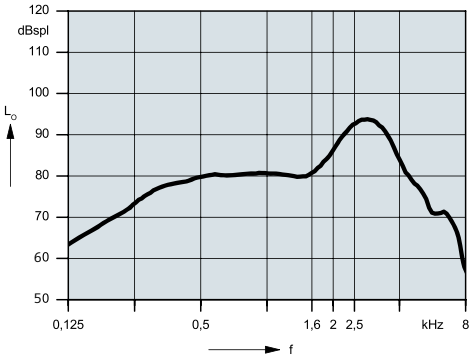
Pure Carat 301 XCL · Basic Data (S-Receiver, Closed Dome)

2 ccm coupler

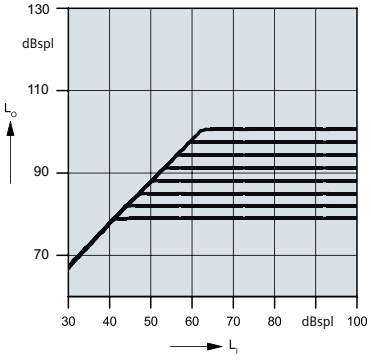


Output Sound Pressure Level (L_I = 90 dB) IEC 60118-7:2005 ANSI S3.22-2003

Full on Gain (L_I = 50 dB) IEC 60118-7:2005 ANSI S3.22-2003

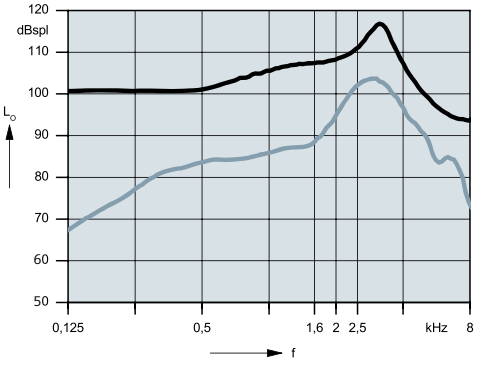


Frequency Response (L_I = 60 dB) IEC 60118-7:2005 ANSI S3.22-2003



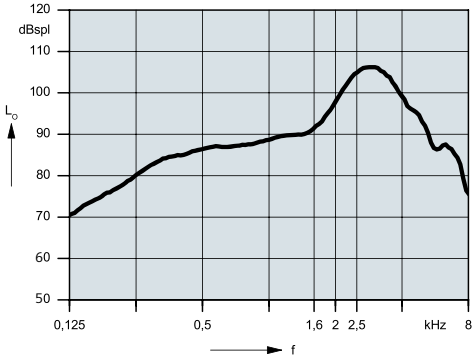
Effect of MPO (FOG, f=2kHz) IEC 60118-7:2005 ANSI S3.22-2003

Ear simulator



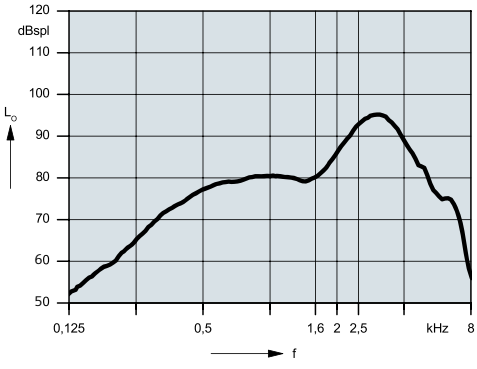
Output Sound Pressure Level (L_I = 90 dB) IEC 118-0/A1

Full on Gain (L_I = 50 dB) IEC 118-0/A1

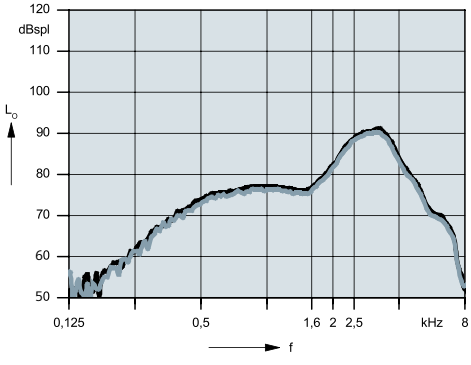


Basic Acoustic Response (L_I = 60 dB) IEC 118-0/A1

Inductive Response



Inductive Response (H = 10 mA/m) IEC 60118-7:2005

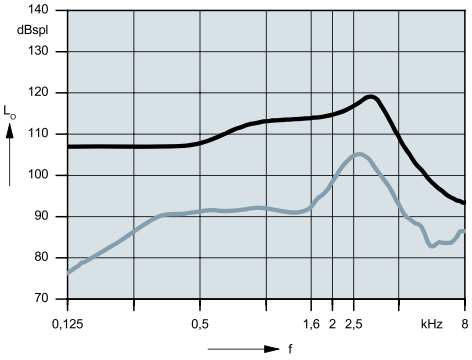


SPLITS curve left (H = 31.6 mA/m) ANSI S3.22-2003

SPLITS curve right (H = 31.6 mA/m) ANSI S3.22-2003

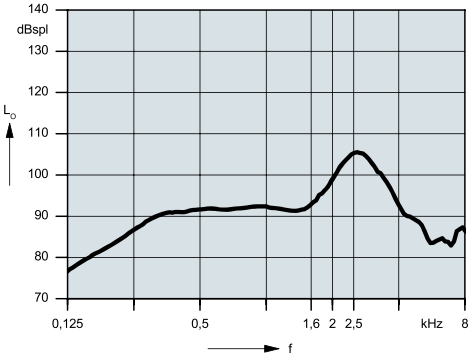
Pure Carat 301 XCL · Basic Data (M-Receiver, Closed Dome)

2 ccm coupler

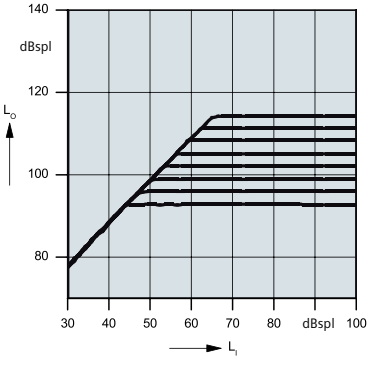


Output Sound Pressure Level (L_I = 90 dB) IEC 60118-7:2005 ANSI S3.22-2003

Full on Gain (L_I = 50 dB) IEC 60118-7:2005; ANSI S3.22-2003

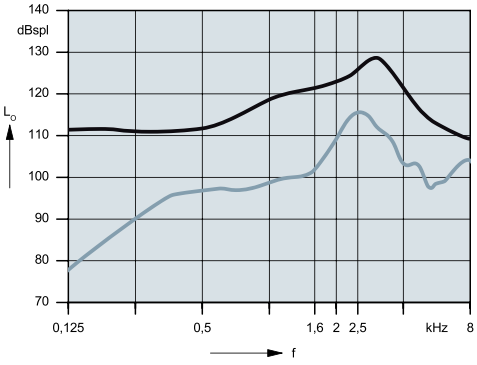


Frequency Response (L_I = 60 dB) IEC 60118-7:2005 ANSI S3.22-2003



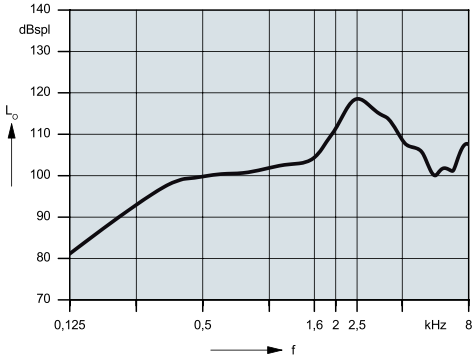
Effect of MPO (FOG, f=2kHz) IEC 60118-7:2005 ANSI S3.22-2003

Ear simulator



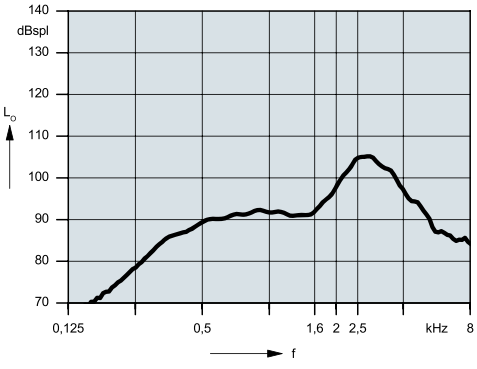
Output Sound Pressure Level (L_I = 90 dB) IEC 118-0/A1

Full on Gain (L_I = 50 dB) IEC 118-0/A1

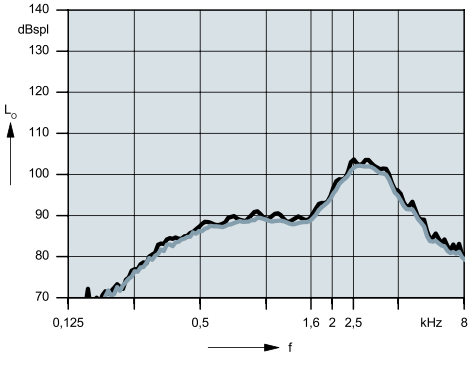


Basic Acoustic Response (L_I = 60 dB) IEC 118-0/A1

Inductive Response



Inductive Response (H = 10 mA/m) IEC 60118-7:2005

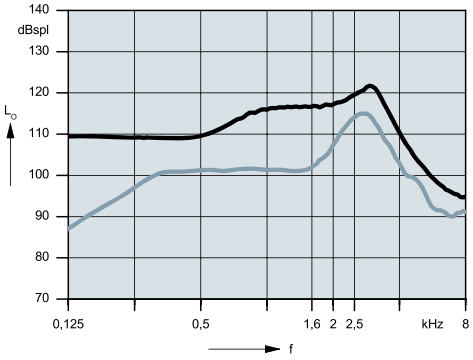


SPLITS curve left (H = 31.6 mA/m) ANSI S3.22-2003

SPLITS curve right (H = 31.6 mA/m) ANSI S3.22-2003

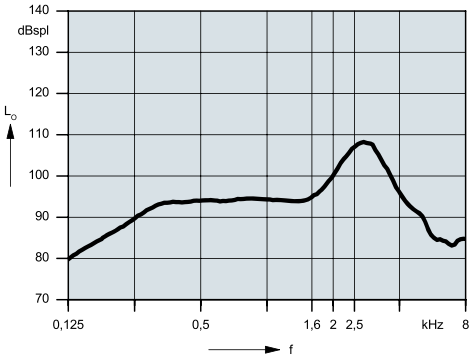
Pure Carat 301 XCL · Basic Data (P-Receiver, Receiver Mold)

2 ccm coupler

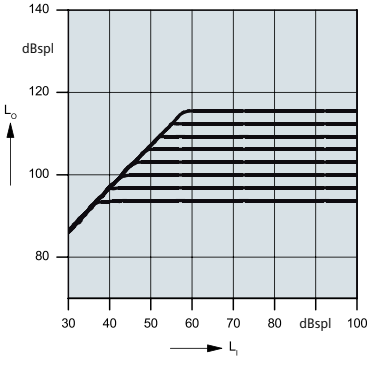


Output Sound Pressure Level (L_I = 90 dB)
IEC 60118-7:2005
ANSI S3.22-2003

Full on Gain (L_I = 50 dB)
IEC 60118-7:2005
ANSI S3.22-2003

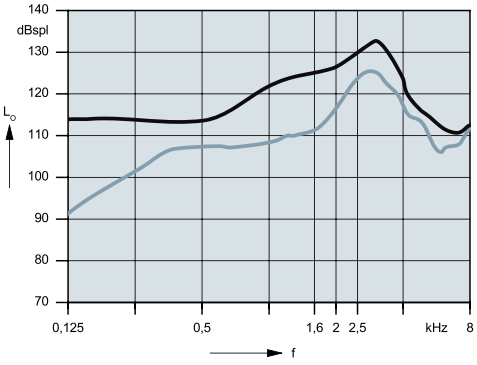


Frequency Response (L_I = 60 dB)
IEC 60118-7:2005
ANSI S3.22-2003



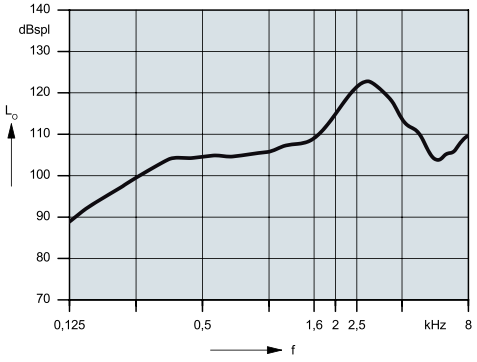
Effect of MPO (FOG, f=2kHz)
IEC 60118-7:2005
ANSI S3.22-2003

Ear simulator



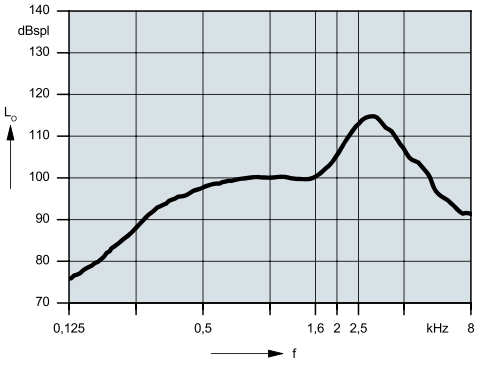
Output Sound Pressure Level (L_I = 90 dB)
IEC 118-0/A1

Full on Gain (L_I = 50 dB)
IEC 118-0/A1

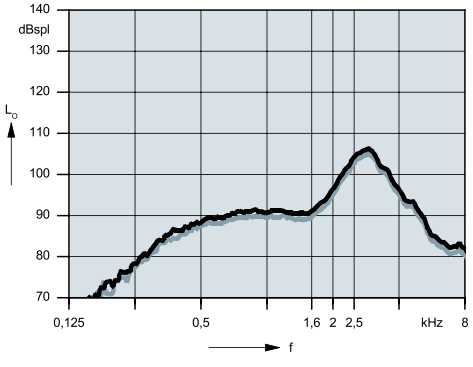


Basic Acoustic Response (L_I = 60 dB)
IEC 118-0/A1

Inductive Response



Inductive Response (H = 10 mA/m)
IEC 60118-7:2005

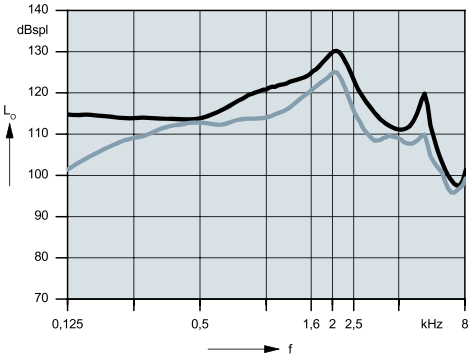


SPLITS curve left (H = 31.6 mA/m)
ANSI S3.22-2003

SPLITS curve right (H = 31.6 mA/m)
ANSI S3.22-2003

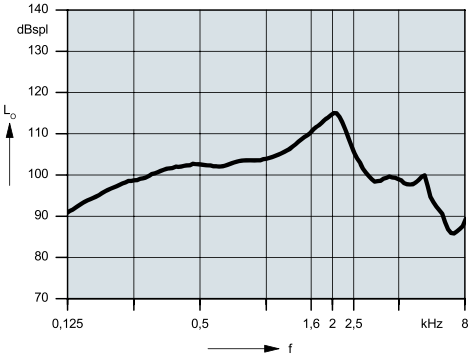
Pure Carat 301 XCL · Basic Data (HP-Receiver, Custom Shell)

2 ccm coupler

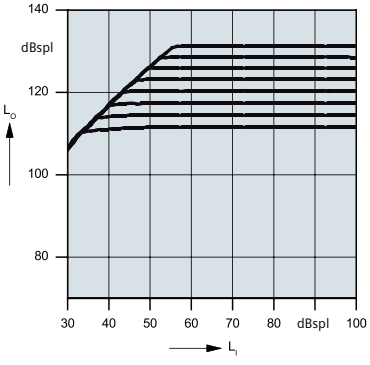


Output Sound Pressure Level (L_I = 90 dB)
IEC 60118-7:2005
ANSI S3.22-2003

Full on Gain (L_I = 50 dB)
IEC 60118-7:2005
ANSI S3.22-2003

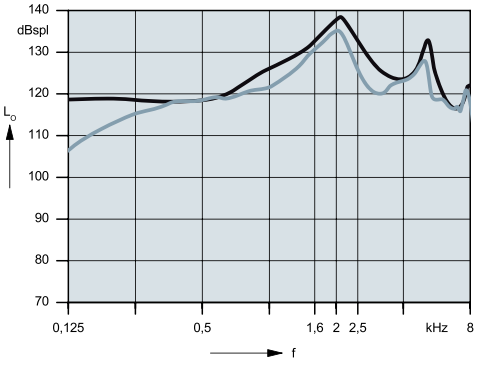


Frequency Response (L_I = 60 dB)
IEC 60118-7:2005
ANSI S3.22-2003



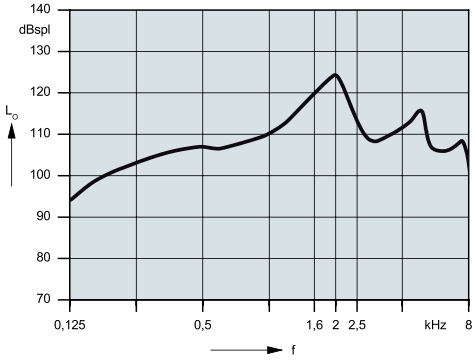
Effect of MPO (FOG, f=2kHz)
IEC 60118-7:2005
ANSI S3.22-2003

Ear simulator



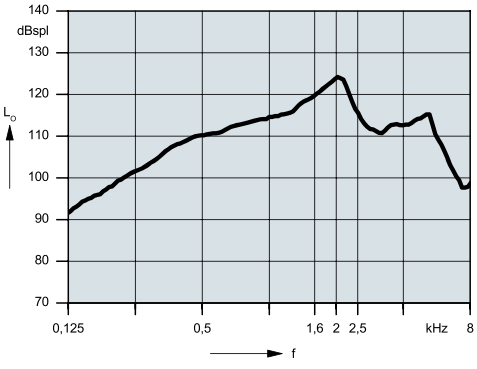
Output Sound Pressure Level (L_I = 90 dB)
IEC 118-0/A1

Full on Gain (L_I = 50 dB)
IEC 118-0/A1

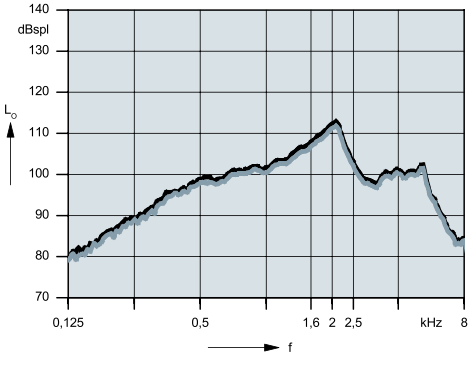


Basic Acoustic Response (L_I = 60 dB)
IEC 118-0/A1

Inductive Response



Inductive Response (H = 10 mA/m)
IEC 60118-7:2005



SPLITS curve left (H = 31.6 mA/m)
ANSI S3.22-2003

SPLITS curve right (H = 31.6 mA/m)
ANSI S3.22-2003

Pure Carat 301 XCL · Order numbers

Pure Carat 301 XCL

• Beige (1)	106 732 23
• Granite (2)	106 732 27
• Grey (3)	106 732 28
• Brown (4)	106 732 25
• Black (5)	106 732 24
• Silver (6)	106 732 31
• Pearl white (7)	106 732 29
• Golden blonde (30)	106 732 26
• Sandy brown (31)	106 732 30
• Dark champagne (37)	106 732 57
• Turquoise blue	106 732 32

Color exchange kits

• Beige (1)	106 026 56
• Granite (2)	106 030 23
• Grey (3)	106 030 24
• Brown (4)	106 030 27
• Black (5)	106 030 28
• Silver (6)	106 030 25
• Pearl white (7)	106 030 26
• Golden blonde (30)	106 030 31
• Sandy brown (31)	106 030 32
• Dark champagne (37)	106 734 32
• Turquoise blue	106 030 37

miniReceiver

S-Receiver

• S-Receiver Unit, 0L	105 989 41
• S-Receiver Unit, 1L	105 989 44
• S-Receiver Unit, 2L	105 989 46
• S-Receiver Unit, 3L	105 989 48
• S-Receiver Unit, 0R	105 989 43
• S-Receiver Unit, 1R	105 989 45
• S-Receiver Unit, 2R	105 989 47
• S-Receiver Unit, 3R	105 989 49

M-Receiver (previous)

• M-Receiver Unit, 0L	105 989 51
• M-Receiver Unit, 1L	105 989 53
• M-Receiver Unit, 2L	105 989 55
• M-Receiver Unit, 3L	105 989 57
• M-Receiver Unit, 0R	105 989 52
• M-Receiver Unit, 1R	105 989 54
• M-Receiver Unit, 2R	105 989 56
• M-Receiver Unit, 3R	105 989 58

miniReceiver

M-Receiver (new)

• M-Receiver Unit, 0L	106 715 94
• M-Receiver Unit, 1L	106 715 96
• M-Receiver Unit, 2L	106 715 98
• M-Receiver Unit, 3L	106 716 00
• M-Receiver Unit, 0R	106 715 95
• M-Receiver Unit, 1R	106 715 97
• M-Receiver Unit, 2R	106 715 99
• M-Receiver Unit, 3R	106 716 01

P-Receiver

• P-Receiver Unit, 0L	105 989 59
• P-Receiver Unit, 1L	105 989 62
• P-Receiver Unit, 2L	105 989 64
• P-Receiver Unit, 3L	105 989 66
• P-Receiver Unit, 0R	105 989 60
• P-Receiver Unit, 1R	105 989 63
• P-Receiver Unit, 2R	105 989 65
• P-Receiver Unit, 3R	105 989 67

HP-Receiver

• HP-Receiver Unit, 0L brown	106 053 10
• HP-Receiver Unit, 1L brown	106 053 11
• HP-Receiver Unit, 2L brown	106 053 12
• HP-Receiver Unit, 3L brown	106 053 13
• HP-Receiver Unit, 0R brown	106 053 14
• HP-Receiver Unit, 1R brown	106 053 15
• HP-Receiver Unit, 2R brown	106 053 16
• HP-Receiver Unit, 3R brown	106 053 17
HP-Receiver Unit, 0L mocca	106 053 18
• HP-Receiver Unit, 1L mocca	106 053 20
• HP-Receiver Unit, 2L mocca	106 053 21
• HP-Receiver Unit, 3L mocca	106 053 22
• HP-Receiver Unit, 0R mocca	106 053 23
• HP-Receiver Unit, 1R mocca	106 053 24
• HP-Receiver Unit, 2R mocca	106 053 25
• HP-Receiver Unit, 3R mocca	106 053 26
• HP-Receiver Unit, 0L beige	106 053 27
• HP-Receiver Unit, 1L beige	106 053 28
• HP-Receiver Unit, 2L beige	106 053 29
• HP-Receiver Unit, 3L beige	106 053 30
• HP-Receiver Unit, 0R beige	106 053 31
• HP-Receiver Unit, 1R beige	106 053 32
• HP-Receiver Unit, 2R beige	106 053 33
• HP-Receiver Unit, 3R beige	106 053 34

Pure Carat 301 XCL · Order Numbers

Click Domes

- Open Click Dome 4 mm (6 pcs) _____ 104 260 24
- Open Click Dome 8 mm (6 pcs) _____ 104 260 22
- Open Click Dome 10 mm (6 pcs) _____ 104 260 23
- Closed Click Dome 6 mm (6 pcs) _____ 104 260 25
- Closed Click Dome 8 mm (6 pcs) _____ 104 260 20
- Closed Click Dome 10 mm (6 pcs) _____ 104 260 21
- Double Click Dome 8/10 mm (6 pcs) _____ 104 260 26
- Double Click Dome 10/12 mm (6 pcs) ___ 104 260 27
- Semi-Open Click Dome (6 pcs) _____ 106 699 71

Accessories

Accessories for fitting

- ConnexxLink wireless programmer _____ 104 236 64
- miniReceiver Wax Guard _____ 105 979 71
- miniReceiver Concha Lock S _____ 104 269 87
- miniReceiver Concha Lock M _____ 104 264 81
- miniReceiver Concha Lock P _____ 104 269 85
- Click Mold Measuring Card _____ 105 987 84
- Click Mold Service Set _____ 105 979 30
- Measuring Gauge _____ 101 745 71
- Removal Tool _____ 106 000 47
- Box HF4 left (blue) (20 wheels à 15 pcs) _ 106 009 85
- Box HF4 right (red) (20 wheels à 15 pcs) _ 106 009 84
- Programming Adapter 13 (2pc) _____ 104 220 16

Accessories for charging

- eCharger _____ 106 002 77
- 13 rechargeable battery (1pc) _____ 104 238 62

Remote control

- ePen _____ 104 172 42
- ProPocket _____ 104 172 40
- Tek wireless enhancement system _____ 104 172 68
- miniTek wireless enhancement system __ 106 034 93

⚠ WARNING

Instrument contains small parts.

Choking hazard!

- Do not use this instrument for the fitting of infants, small children or persons of mental incapacity.

⚠ WARNING

Instrument has an output sound pressure level of 132 dBSPL or more.

Risk of impairing the residual hearing of the user.

- Take special care when fitting this instrument.

The information in this document contains general descriptions of the technical options available, which do not always have to be present in individual cases and are subject to change without prior notice. The required features should therefore be specified in each individual case at the time of conclusion of the respective contract.
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