

ANNALPINE



.....

STORE PINE



**Hi**·Res

### Hi-Res Audio Made Accessible



Music tracks at 192kHz / 16bit format are more <u>easily accessible</u> in online stores.

High-Res Audio playback of 192kHz / 24bit allows Alpine Status to create a heightened listening experience in the vehicle that emulates the feeling of an intimate recording studio session.





### AlpineF#1Status vs. AlpineStatus

### Alpine F\*1 Status

1 Fixed System Configuration

Very High System Cost

Closed System

384kHz / 32bit Files Limited Selection

Very Selected Dealers

### Alpine Status

Highly Flexible System

Affordable System Cost

Expandable System

192kHz / 16bit Easily Accessible Files

Available Through Alpine Specialist Dealers





MMALPINE





MINAL PROF

m

and PER

\*

MALPINE





### AlpineF#1Status Trickle-Down Technology

### Alpine F\*1 Status

### Alpine Status

Full-Spec Hi-Res (384kHz / 32bit playback)

High-End XO (1/10,000) + Master Clock Management System

0,9mm Steps Digital Time Correction

High-End OP AMP (MUSES05)

Same Material Diaphragm (Carbon Fiber Reinforced Plastic) High-Spec Hi-Res (192kHz / 24bit playback)

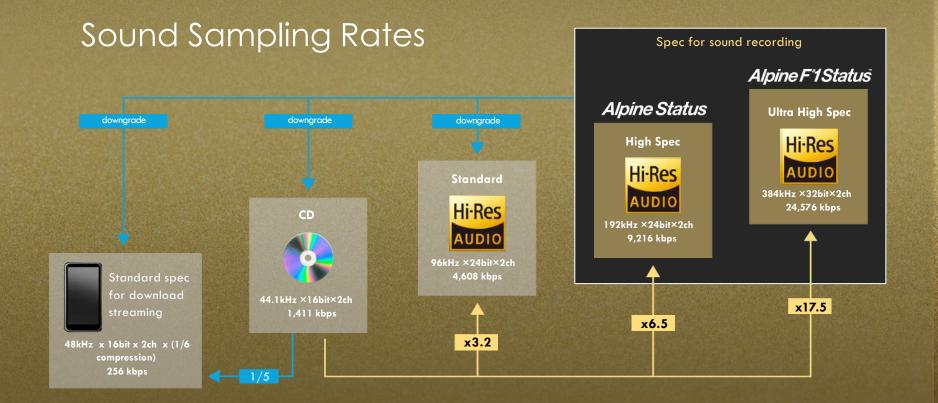
High-Class XO (1/1,000) – Crystal Oscillator Clock Generator

7mm Steps Digital Time Correction

High-Class OP-AMP (MUSES8820)

Same Material Diaphragm (Backed Carbon X Carbon Fiber)







HEAD UNIT





### HI-RESOLUTION DETAIL





HDS-990 Hi-Res Audio Head Unit



### **FEATURES**

External Control Panel and 1DIN Media Box 4x 50 Watts Built-In Amplifier 3x USB Ports in Media Box (1x front / 2x back) 192kHz / 32Bit System Sampling Rate Frequency Response: 20Hz – 40kHz (Hi-Res) DSP: 6-Ch 31-band EQ 3-Way Digital X-Over **Digital Time Correction** MP3/WMA/AAC/MP4/WAV/FLAC/APE/DSD



### HDS-990 Hi-Res Audio Head Unit





HDS-990 Hi-Res Audio Head Unit

# INPUTS

OUTPUTS

- 4-Ch. High Level Inputs
- 2-Ch. AUX Inputs
- USB Audio
- Bluetooth Audio

- 4-Ch. High Level Outputs
- 6-Ch. RCA Outputs
- Optical Output
- Coaxial Output





Reset BUTTON OF

HDS-990 1-DIN Media Box





Poweron selector

Hilerel Inouts

Xulliple Line Connector

USB PORS 2.43

POWERSUPPH SPEAKER







### **Display Information**

- Input Source Indicator
- Song / Artist / Album Information
- Album Artwork Display
- Media Format / Sampling Rate Display

### **Rotary Encoder Operation**

- Rotate left and right to adjust volume
- Short press to enter song list
- Long press (2 sec) to enter settings interface





Wired USB Connection

Use up to 192kHz / 24bit audio files from a USB device (FAT16/32, NTFS, exFAT)



### **Bluetooth Audio Streaming**

Stream files up to 96kHz / 24bit with wireless convenience from your phone





#### **Bluetooth Audio Codecs**

SBC AAC aptX aptX HD LDAC









Performance			
Pauros Outra et	Rated: 4Ω, 14.4V, 1kHz, 10%THD	4CH×25W	
Power Output	Maximum: 4Ω, 14.4V, 1kHz, 10%THD	4CH×50W	
THD+N	RCA: 14.4V, 4Ω,1W, A-wt	≤0.03%	
S/N (RCA)	RCA: 14.4V, 1KHz. A-wt, 1%THD	≥98dB	
Input Voltage	High level: 14.4V, 1KHz, 1%THD	32Vpp	
input voltage	RCA: 14.4V, 1KHz, 1%THD	8Vpp	
Dutput Voltage	High level: 14.4V, 1KHz, 1%THD	28	
Output voltage	RCA: 14.4V, 1KHz, 1%THD	12Vpp	
Input/Output Sensitivity(RCA)	14.4V, 1KHz, 1%THD	1:1.5 (no power amplification)	
Frequency Response	14.4V, 1W, 4Ω	20Hz ~ 40kHz (±1.5dB)	
Channel Separation	14.4V, 1KHz, A-wt	≥80dB	
Noise	RCA	9uVrms	
Noise	High level	58uVrms	
Dynamic Range		≥100dB	
General			
	High level	240Ω	
Input Resistance	RCA	10kΩ	
Output Resistance	RCA	51Ω	
System Sampling Rate	192kHz/32bit		
Operating Voltage	9~16V		
Quiescent Current	≤3mA (not on state)		
Standby Power Consumption	≤0.1W		
REM Start Input	High level (FL+/FL-), ACC optional		
REM Start Output	12V (0.2A)		
Boot Time	15s		
Ambient Temperature	-20~70°C		
Storage Temperature	Storage Temperature		
Net Weight		0.77kg	
	Length	178mm	
Host Size	Width	143.6mm	
	High	50mm	

Music Player	ŵ.		
Interface	USB 2.0		
Capacity	Maximum Support 2TB		
Maximum Power Consumption	1.5A		
File System	FAT16/32, NTFS, exFAT		
The maximum number of songs that can be played	10,000 Songs		
Mp3 Decoding	MPEG Audio Layer-3		
WMA Decoding	Windows Media <sup>™</sup> Audio		
AAC Decoding	".M4a" File in ACC-LC format		
WAC Decoding	MPDG Audio Layer-4		
FLAC Decoding	Wave Sound File		
APE Decoding	Free Lossless Audio Codec		
DSD Decoding	Mokey,s Audio		
Bluetooth Supports Audio Formats	ACC/SBC/APTX HD/LDAC		

DSP AMPLIFIER







### PROCESSING POWER







#### **FEATURES**

Highly Flexible System Configuration Built-in 12-Channel Digital Amplifier High-Class XO (1/1,000) Crystal Oscillator Clock Generator Matrix Input Summing Parametric / Graphic Equalizer (31-Band / Ch) **Digital Time Correction** External Bluetooth Dongle Included High-Performance PC Software Pre-configured systems (Software)

Optional Controller Available (RUX-C810)



HDP-D90 Hi-Res Audio DSP Amplifier



### <u>SPECS</u>





HDP-D90 Hi-Res Audio DSP Amplifier



















# MUSES

### High Quality Analog Circuit

The operational amplifier is a key device that enhances the performance and sound quality of audio analog circuits. These are the ICs used throughout the circuit to process the analog signals, and to ensure uncompromising sound, we use the MUSES8820, the industry's best operational amplifier, chosen by Alpine sound tuning experts.

In addition, our expertise in analog circuit technology, developed over the years as an audio manufacturer, has been used throughout the product to suppress mutual induction between circuits as well as noise, especially third harmonic components, to the utmost limit, resulting in clear and crisp sound quality.

B

1111/11. PINE



### Bluetooth Dongle

- Included with HDP-D90
- Required for stand-alone systems (without HDS-990) for Bluetooth streaming
- Range 10 meters
- Plug-and-play installation





**PC Software** System Output Configuration

	NE HDP-D90		Option Encryption Master	vəl (d)	27 Hom	e Input Output	- C TCR Mix RTA
🖸 сн-т	F/L-Tweeter	0	Custom	Front sound field stereo(2CH)	Four-CH (4CH)	Four-CH + FC(SCH)	Four-CH + SubW (5CH)
🗿 сн-2	f/fi+Towester	(1) (m)				8	
🕑 СН-3	F/L-Midrange	<b>(1)</b> 00					) e.e. mail
🕑 сн-4	F/R-Midrange	Q) 🛞	<b>c</b> (+)			A BURN BURN	y a car mra y
<ul> <li>СН-5</li> </ul>	F/L-Subwoof¥i	(1) (e)	_ن_		0 m. fut en fut 0		O MUGH REFLEC
ⓒ СН-6	E/R-Subwooter	<b>(1)</b>				V No Del Deciment V	
CH-7	R/L-Tweeter	(1) (m)					
<ul> <li>СН-8</li> </ul>	R/R-Typeter	(1) (m)	Four-CH + L&R-SubW(6CH)	Front 2way + Rear (6CH)	Front Zway + Rear + SubW(7CH)	Four-CH + FC + L&R-SubW(7CH)	Front 2way + Rear + LBR-SubW(8CH)
🗐 сн-9	R/IL-Subwooter	<b>(1)</b> 00					Ninchas Innas (S
Stereo CH-10	R/R-Subwoafer	(1) oc		TO FL HUN FRI HUN UP	O FLHQS FITHUR DO		TO FUHUE THE UP
🗐 СН-11	L-Subwoofer	(j) (m					
Stereo	R-Sabwatcher	(1) (m)					
🗐 СН-13	F/C-Twaster	(1) (10)	8 8			e e	3 3
🗿 сн-14	F/C-Midrange	d) 📀					
	Output type						Next

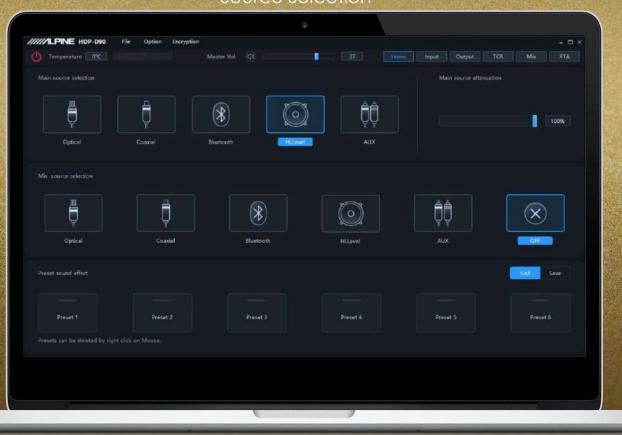


### PC Software 31-Band EQ Setup

CH-1       FL-Tanuar       (1)       +CH-1       +CH-2       +CH-3       +CH-4       +CH-5       +CH-6       +CH-1       +CH-1 <t< th=""><th>RTA</th></t<>	RTA
(a)       (h)       (b)       (b)       (c)       (	• CH-14
Image: CH-3       EL-Microsope       Image: CH-4	
(a) CH-3         (b) 00         (c)	
Image: CH-4       FR.Mourage       Image: CH-5       FR.Mourage       F	
(a) CH-3       Finishingtone CB (b) (b)       -6         (a) CH-6       Finishingtone CB (b) (b)       -6         (a) CH-7       Introduce CB (b) (b)       -12         (b) CH-7       Introduce CB (b) (b)       -12         (c) CH-7       Introduce CB (b) (b)       -12         (c) CH-6       Introduce CB (b) (b)       -12         (c) CH-7       Introduce CB (b)       -6         (c) CH-8       Introduce CB (b)       -6         (c) CH-9       Introduce CB (b)       -6         (c) CH-10       Introduce CB (b)       -6         (c) CH-11       Linearce/LB (b)       -6         (c) CH-11       -6       -6         (c) CH-11       -6       -6       -6         (c) CH-11       -6       -7       -6       -7         (c) CH-12       -7       -7       -7       -7       -7 <td></td>	
CH-6       Introduced (0) (0)       -9         CH-7       Introduced (0) (0)       -12/20       30       100       200       500       1K       2K       5K       10K       20K         CH-6       Introduced (0) (0)       -12/20       30       100       200       500       1K       2K       5K       10K       20K         CH-6       Introduced (0) (0)       -12/20       30       100       200       500       1K       2K       5K       10K       20K         CH-6       Introduced (0) (0)       -12/20       30       100       200       500       1K       2K       5K       10K       20K         CH-6       Introduced (0) (0)       Band       1       2       3       4       5       6       7       8       9       10       11       12       13       14       15       16       17       18       19       20       21       22       23       24       25       26       27       28       29       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100       100<	
CH-8       Not-Streeter       (1)       2       3       4       5       6       7       8       9       10       11       12       13       14       15       16       17       18       19       20       21       22       23       24       25       26       27       28       29         CH-8       Not-Science       (1)       (2)       5       5       6       7       8       9       10       11       12       13       14       15       16       17       18       19       20       21       22       23       24       25       26       27       28       29         CH-9       Not-Science       (1)       (2)       5	
C CH-9         Introducescent         (1)         (2)	40K
CH-9 INcommenter  Q Value som for tagt	
CH-10 RR/Subwooder (2) (co Bypass CH-11 Listoweder (2) (co CH-11 Listow	
Stereo	Q Mode
CH-12 Reduceder (1) (00 Channel settings H.2.1, Channel settings	•
CH-13 HC-TWeeker (1) 000 Gain - 0dB Type Link-Ril Type I	Null
CH-14 TC-Mounge (1) on Phase P	1000Hz
Output type	



### PC Software Source Selcetion







### RUX-C810 Controller

- Separately Available
- Required for stand-alone operation of HDP-D90
   without Head Unit HDS-990
- Allows basic operation such as volume control, source selection, pre-set selection, etc
  - Compact size

•

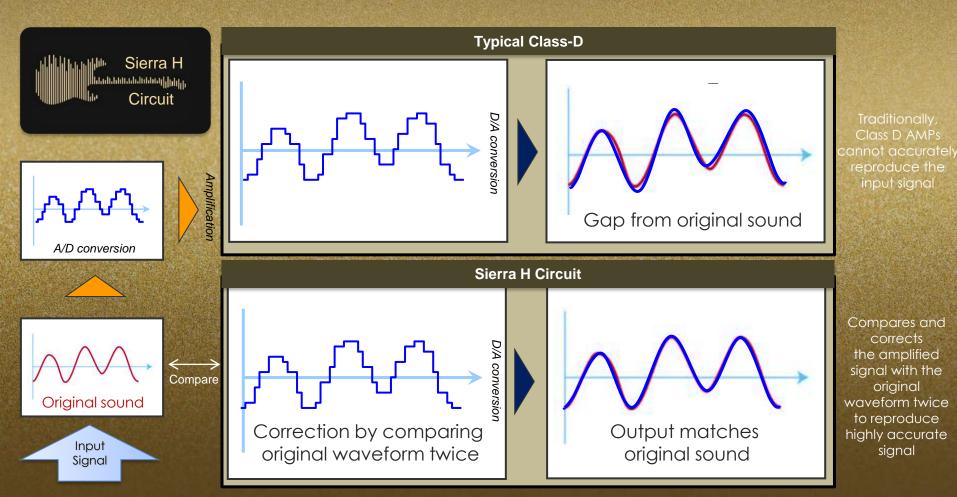
AMPLIFIERS

















Channel Output



RC7 MOUT PROUT

EUSOS (34 30 P)

#### HDA-M80 Digital Mono Amplifier



#### **FEATURES**

RMS Power Output:  $1 \times 500W (4\Omega) / 1 \times 800W (2\Omega)$ Amplification Circuit: Class-D THD+N: ≤0.02% (10W) / ≤0.07% (Rated Power) S/N Ratio: >107dB Copper Plated Chassis & Black Circuit Board AlpineF#1Status Trickle-down Technology Frequency Response: 8-400Hz (-3dB) Damping Factor: >1,500

Measurements: W297mm x D192mm x H51mm



HDA-M80 Digital Mono Amplifier















#### HDA-F60 4-Channel Power Amplifier

#### **FEATURES**

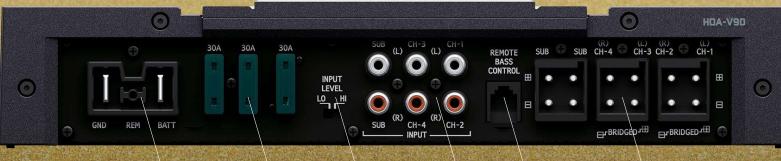
RMS Power Output:  $4x 100W (4\Omega) / 4x 150W (2\Omega)$  $/ 2x 300W (4\Omega)$  Bridged Amplification Circuit: Class-D THD+N: ≤0.02% (10W) / ≤0.07% (Rated Power) S/N Ratio: >106dB Copper Plated Chassis & Black Circuit Board Frequency Response: 10-60kHz (Hi-Res) Damping Factor: >500

Measurements: W297mm x D192mm x H51mm

















#### HDA-V90 5-Channel Power Amplifier

#### **FEATURES**

RMS Power Output:  $4x75W + 1x300W(4\Omega)$  /  $4x 100W + 1x 500W (2\Omega) / 2x 200W (4\Omega) Bridged$ Amplification Circuit: Class-D THD+N: ≤0.02% (10W) / ≤0.07% (Rated Power) S/N Ratio: Ch. 1-4 > 105dB / Ch. 5 > 104dB Copper Plated Chassis & Black Circuit Board Frequency Response: 10-60kHz (Hi-Res) Damping Factor: Ch. 1-4 >500 / Ch. 5 >1,000 Measurements: W297mm x D192mm x H51mm



SPEAKERS







#### **FEATURES**

- Double-gathered Edge (AlpineF#1Status
  - trickle-down technology)
- Wave-Guide
- Carbon-Fiber Cones on all speakers
- Aluminum Die-Cast Baskets
- Ferrite Magnets (Subwoofer & Woofer)
- Neodymium Magnets (Mid & Tweeter)

/////LPIN



#### **Carbon Fiber Cones**

//LPIN

The subwoofer, woofer, mid-range and tweeters use backed carbon composite cones to achieve a fully unified timbre identity – resulting in excellent harmonics. Carbon is very light and stiff, resulting in high dynamic and low distortion.





Same construction technique than in carbon monocoques



#### Basket / Motor Design

Alle speakers and the subwoofer share the same cosmetic design philosophy for a unified look and feel.





ALPINE



#### High-End Ring-Radiator Tweeters

**Ring-Radiator Design** 

Carbon-Fiber Diaphragm

Wave Guide

Tuned back-Chamber Design

Neodymium Magnet

Threaded Housing for Installation





#### High-End Speaker Crossover

High-End Components Woofer X-Over: 12dB / Oct or 6dB / Oct selectable Tweeter Level Adjustment: +3dB / 0dB / -3dB Midrange Speaker Level: 0dB / -3dB (3-Way only) Removable See-Through Cover







#### **FEATURES**

Maximum Peak Power: 300W Maximum RMS Power: 100W Sensitivity: 88dB Frequency Response: 55Hz-40kHz Impedance:  $4\Omega$ Structure: Carbon Cone & Double Gathered Edge Woofer: 170mm (177mm with grill) Midrange: 96mm Tweeter: 70mm (25mm voice coil) High-End X-Over Network



#### HDZ-653 6.5" 3-Way Component Speakers







#### **FEATURES**

Maximum Peak Power: 300W Maximum RMS Power: 100W Sensitivity: 88dB Frequency Response: 55Hz-40kHz Impedance:  $4\Omega$ Structure: Carbon Cone & Double Gathered Edge Woofer: 170mm (177mm with grill) Tweeter: 70mm (25mm voice coil) High-End X-Over Network

HDZ-65C 6.5" 2-Way Component Speakers









## Tweeter Differences: Regular vs. Slim-Fit





#### HDZ-653 / HDZ-65C Tweeter 70mm Alpine Status Tweeter

- Larger magnet & diaphragm
- Tuned back-chamber
- Highest sound quality focus

HDZ-653S / HDZ-65CS / HDZ-65 Tweeter

44mm Alpine Status Slim-Fit Tweeter

- Smaller overall size and diaphragm
- Low installation depth
- High installability focus in OEM locations



#### **FEATURES**

Maximum Peak Power: 300W Maximum RMS Power: 100W Sensitivity: 88dB Frequency Response: 55Hz-40kHz Impedance:  $4\Omega$ Structure: Carbon Cone & Double Gathered Edge Woofer: 170mm (177mm with grill) Midrange: 96mm Slim-Fit Tweeter: 40mm (58mm with housing) High-End X-Over Network



#### HDZ-653S 16,5cm 2-Way Slim-Fit Component Speakers







#### **FEATURES**

Maximum Peak Power: 300W Maximum RMS Power: 100W Sensitivity: 88dB Frequency Response: 55Hz-40kHz Impedance:  $4\Omega$ Structure: Carbon Cone & Double Gathered Edge Woofer: 170mm (177mm with grill) Slim-Fit Tweeter: 40mm (58mm with housing) High-End X-Over Network

HDZ-65CS 16,5cm 2-Way Slim-Fit Component Speakers

///ILPINE

**Hi**·Res

AUDIO





**Hi**-Res

AUDIO



#### **FEATURES**

Maximum Peak Power: 300W Maximum RMS Power: 100W Sensitivity: 88dB Frequency Response: 55Hz-40kHz Impedance:  $4\Omega$ Structure: Carbon Cone & Double Gathered Edge Woofer: 170mm (177mm with grill) Slim-Fit Tweeter: 40mm Integrated X-Over Network

#### HDZ-65 16,5cm 2-Way Coaxial Speakers

///I PIN







## Measurements





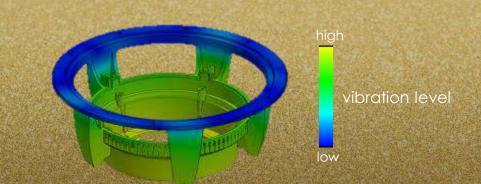
Carbon Fiber Cone for highest rigidity and stiffness & perfect tonal harmony with the speakers

- Double Gathered Edge for maximum excursion with excellent cone control and stability

IIIIA PI

13131313





- Frame structure and screw holes chosen for maximum noise and distortion prevention caused by internal vibrations
- Goal was to bring the internal resonance point out of the playback range (achieved at 922Hz)
- 10 screw holes worked best in computer simulations



#### **FEATURES**

Maximum Peak Power: 1200W Maximum RMS Power: 400W Dual  $2\Omega$  Voice Coils Frequency Response: 25 Hz – 300 Hz Hybrid Carbon Cone & Double Gathered Edge Aluminum Die-cast Frame Ferrite Magnet

Heavy-gauge Screw-type Terminals

Trickle-Down Technology from Alpine F#1Status

HDZ-110 11" Subwoofer 19191919

# Introduction





# Pricing



		T1 / T2 Price	Germany SRP Reference
HDS-990	Hi-Res Audio Head Unit	470€	1.399€
HDP-D90	Hi-res Audio DSP Amplifier	620€	1.999€
HDA-M80	Mono Power Amplifier	290€	799€
HDA-F60	4-Channel Power Amplifier	290€	799€
HDA-V90	5-Channel Power Amplifier	365€	999€
HDZ-653	3-Way Component Speakers	400€	1.149€
HDZ-65C	2-Way Component Speakers	290€	899€
HDZ-653S	3-Way Slim-fit Component Speakers	350€	1.099€
HDZ-65CS	2-Way Slim-fit Component Speakers	265€	849€
HDZ-65	Coaxial Speakers	240€	699€
HDZ-110	Subwoofer	245€	799€