

General Specifications			
Name/Model	DM15 R2R	Hardware Scheme	Master control: GD32F305RET6, op-amp: SGM8262*2, DAC: FII/O proprietary R2R DAC, Bluetooth: QCC3095, USB chip: SPV5048
Working mode	CD playback/USB DAC mode/Bluetooth transmitter mode		
Color	White/Black/Red/Silver/Retro gold	Weight	About 471.5g
Dimensions	About 144x 137x 25.5mm (not including foot pads and knobs)	Volume Control	Knob
Display	0.96 inch (80x 160)LCD display	Laser pickup	Custom laser pickup
Adaptive impedance	PO:8~350Ω BAL:8~350Ω	Mechanism	Custom mechanism
Buttons and Ports			
Buttons	Power*1; Stop*1; Play/Pause*1; Previous track*1; Next track*1; EQ*1;	USB	Type-C USB2.0 * 1 (data transfer) + Type-C POWER IN * 1 (charging/independent power supply interface)
Headphone output	Standard 3.5mm socket	Balanced output	standard 4.4mm socket
Line output	Standard 3.5mm socket	Balanced line output	standard 4.4mm socket
Coaxial output	Standard 3.5mm socket (multiplexed with LO port)	Optical output	standard 3.5mm socket (multiplexed with LO port)
Slide switch	Input switch button * 1 + output switch button * 1 + BASS switch * 1 + ESP switch * 1 + D.MODE switch * 1		
Special function			
Bluetooth transmission (5.4)	SBC/aptX/aptX-HD/aptX-LL/aptX-Adaptive	Operation mode	Button/Knob
BASS	BASS OFF/1/2	Timing Shutdown	Supported
EQ Adjustment	built-in 8 kinds of preset EQ	Drive-free mode	Supported
Maximum supported sampling rate	USB DAC: Up to 384kHz/32bit; DSD256 (Native)	Firmware Upgrade	USB Upgrade/Local Upgrade
	Coaxial output: Up to 192kHz/24bit		
	Optical output: Up to 96kHz/24bit		
Power Supply Parameters			
Power supply	Supports PD2.0 and PD3.0 fast charge	Charging time	About 2 hours (PD3.0 fast charge)
CD playback mode battery life and test conditions			
3.5mm headphone output: 7 hours			
Volume	59	BASS	OFF
Display state	OFF	ESP	ON
EQ	OFF	D.MODE	OFF
load	32 Ω		
4.4mm balanced headphone output: 7 hours			
Volume	53	BASS	OFF
Display state	OFF	ESP	ON
EQ	OFF	D.MODE	OFF
Load	32 Ω		
USB decoding mode battery life and test conditions			
3.5mm headphone output: 11 hours			
Volume	59	BASS	OFF
screen status	OFF	ESP	OFF
EQ	OFF	D.MODE	OFF
load	32 Ω		
4.4mm balanced headphone output: 10.5 hours			
Volume	53	BASS	OFF
screen status	OFF	ESP	OFF
EQ	OFF	D.MODE	OFF
load	32 Ω		
Audio Parameters			
Performance and parameters of headphone output (3.5mm output, USB DAC, OS mode, desktop mode)			
Output power	L+R≥575mW+575mW (16Ω,THD+N<1%,3.1Vrms)	Output impedance	<1Ω
	L+R≥315mW+315mW (32Ω,THD+N<1%,3.2Vrms)	Crosstalk	≥ 72dB
	L+R≥35mW+35mW (300Ω,THD+N<1%,3.3Vrms)	Peak output voltage	9.5Vp-p
SNR	≥ 111dB (A-weighted)	THD+N	<0.025%(1kHz/-6dB @ 32Ω)
Frequency response	20Hz ~ 80kHz: Attenuation <2.9dB	Noise floor	<8.7uV(A weight)
	20Hz ~ 20kHz: attenuation <0.2dB	Dynamic range	≥ 106dB (A-weighted)
Performance and parameters of headphone output (3.5mm output, USB DAC, OS mode)			
Output power	L+R≥405mW+405mW (16Ω,THD+N<1%,2.5Vrms)	Output impedance	<1Ω
	L+R≥220mW+220mW (32Ω,THD+N<1%,2.7Vrms)	Crosstalk	≥ 72dB
	L+R≥25mW+25mW (300Ω,THD+N<1%,2.8Vrms)	Peak output voltage	7.9Vp-p
signal-to-noise ratio	≥ 111dB (A-weighted)	THD+N	<0.025%(1kHz/-6dB @ 32Ω)
Frequency response	20Hz ~ 80kHz: Attenuation <2.9dB	Noise floor	<7.5uV(A weight)
	20Hz ~ 20kHz: attenuation <0.2dB	Dynamic range	≥ 106dB (A-weighted)
Performance and parameters of balanced headphone output (4.4mm output, USB DAC, OS mode, desktop mode)			
Output power	L+R≥480mW+480mW (16Ω,THD+N<1%,2.8Vrms)	Output impedance	<1.5Ω
	L+R≥1150mW+1150mW (32Ω,THD+N<1%,6.1Vrms)	Crosstalk	≥ 100dB
	L+R≥145mW+145mW (300Ω,THD+N<1%,6.6Vrms)	Peak output voltage	18.8Vp-p
SNR	≥ 112dB (A-weighted)	THD+N	<0.025%(1kHz/-6dB @ 32Ω)
Frequency response	20Hz ~ 70kHz: Attenuation <3dB	Noise floor	<14.7uV(A weight)

	20Hz ~ 20KHz: attenuation <0.3dB	Dynamic range	≥ 107dB (A-weighted)
Performance and parameters of balanced headphone output (4.4mm output, USB DAC, OS mode)			
Output power	L+R≥545mW+545mW (16Ω,THD+N<1%,2.9Vrms)	Output impedance	<1.5Ω
	L+R≥815mW+815mW (32Ω,THD+N<1%,5.1Vrms)	Crosstalk	≥ 100dB
	L+R≥100mW+100mW (300Ω,THD+N<1%,5.5Vrms)	Peak output voltage	15.8Vp-p
SNR	≥ 112dB (A-weighted)	THD+N	<0.025%(1kHz/-6dB @ 32Ω)
Frequency response	20Hz ~ 80kHz: attenuation <2.9dB	Noise floor	<12.7uV(A weight)
	20Hz ~ 20KHz: attenuation <0.2dB	Dynamic range	≥ 107dB (A-weighted)
Performance and parameters of line output (3.5mm output, USB DAC, OS mode, desktop mode)			
THD+N	<0.025%(1kHz/-6dB @ 10KΩ)	SNR	≥ 111dB(A-weighted)
Crosstalk	≥ 100dB	Noise floor	<9.2uV(A weight)
Frequency response	20Hz ~ 80kHz: attenuation <2.9dB	Line Output Level	3.3Vrms(1kHz@10kΩ)
	20Hz ~ 20KHz: attenuation <0.2dB	Dynamic range	≥ 106dB (A-weighted)
Performance and parameters of line output (3.5mm output, USB DAC, OS mode)			
THD+N	<0.025%(1kHz/-6dB @ 10KΩ)	SNR	≥ 111dB(A-weighted)
Crosstalk	≥ 100dB	Noise floor	<7.9uV(A weight)
Frequency response	20Hz ~ 80kHz: attenuation <2.9dB	Line Output Level	2.8Vrms(1kHz@10kΩ)
	20Hz ~ 20KHz: attenuation <0.2dB	Dynamic range	≥ 106dB (A-weighted)
Performance and parameters of balanced line output (4.4mm output, USB DAC, OS mode, desktop mode)			
THD+N	<0.025%(1kHz/-6dB @ 10KΩ)	SNR	≥ 112dB (A-weighted)
Crosstalk	≥ 108dB	Noise floor	<15.6uV(A weight)
Frequency response	20Hz ~ 80kHz: attenuation <2.9dB	Line Output Level	6.5Vrms(1kHz@10kΩ)
	20Hz ~ 20KHz: attenuation <0.2dB	Dynamic range	≥ 107dB (A-weighted)
Performance and parameters of balanced line output (4.4mm output, USB DAC, OS mode)			
THD+N	<0.024%(1kHz/-6dB @ 10KΩ)	SNR	≥ 112dB (A-weighted)
Crosstalk	≥ 108dB	Noise floor	<13uV(A weight)
Frequency response	20Hz ~ 80kHz: attenuation <2.9dB	Line Output Level	5.4Vrms(1kHz@10kΩ)
	20Hz ~ 20KHz: attenuation <0.2dB	Dynamic range	≥ 107dB (A-weighted)
Performance and parameters of line output (3.5mm output, CD, OS mode, desktop mode)			
Output power	L+R≥575mW+575mW (16Ω,THD+N<1%,3.1Vrms)	Output impedance	<1Ω
	L+R≥315mW+315mW (32Ω,THD+N<1%,3.2Vrms)	Crosstalk	≥ 72dB
	L+R≥35mW+35mW (300Ω,THD+N<1%,3.3Vrms)	Peak output voltage	9.5Vp-p
SNR	≥ 110dB (A-weighted)	THD+N	<0.028%(1kHz/0dB @ 32Ω)
Dynamic range	≥ 94dB (A-weighted)	Noise floor	<9.7uV(A weight)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of line output (3.5mm output, CD, OS mode)			
Output power	L+R≥405mW+405mW (16Ω,THD+N<1%,2.5Vrms)	Output impedance	<1Ω
	L+R≥220mW+220mW (32Ω,THD+N<1%,2.7Vrms)	Crosstalk	≥ 72dB
	L+R≥25mW+25mW (300Ω,THD+N<1%,2.8Vrms)	Peak output voltage	7.9Vp-p
SNR	≥ 109dB (A weight)	THD+N	<0.027%(1kHz/0dB @ 32Ω)
Dynamic range	≥ 94dB (A-weighted)	Noise floor	<8.5uV(A weight)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of balanced headphone output (4.4mm output, CD, OS mode, desktop mode)			
Output power	L+R≥480mW+480mW (16Ω,THD+N<1%,2.8Vrms)	Output impedance	<1.5Ω
	L+R≥1150mW+1150mW (32Ω,THD+N<1%,6.1Vrms)	Crosstalk	≥ 100dB
	L+R≥145mW+145mW (300Ω,THD+N<1%,6.6Vrms)	Peak output voltage	18.8Vp-p
SNR	≥ 112dB (A-weighted)	THD+N	<0.030%(1kHz/0dB @ 32Ω)
Dynamic range	≥ 94dB (A-weighted)	Noise floor	<14uV(A-weighted)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of balanced headphone output (4.4mm output, CD, OS mode)			
Output power	L+R≥490mW+490mW (16Ω,THD+N<1%,2.8Vrms)	Output impedance	<1.5Ω
	L+R≥810mW+810mW (32Ω,THD+N<1%,5.1Vrms)	Crosstalk	≥ 100dB
	L+R≥100mW+100mW (300Ω,THD+N<1%,5.5Vrms)	Peak output voltage	15.8Vp-p
SNR	≥ 110dB (A-weighted)	THD+N	<0.029%(1kHz/0dB @ 32Ω)
Dynamic range	≥ 94dB (A-weighted)	Noise floor	<13.6uV(A weight)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of line output (3.5mm output, CD, OS mode, desktop mode)			
THD+N	<0.028%(1kHz/0dB @ 10KΩ)	SNR	≥ 110dB(A-weighted)
Crosstalk	≥ 100dB	Noise floor	<9.6uV(A weight)
Dynamic range	≥ 94dB (A-weighted)	Line Output Level	3.3Vrms(1kHz@10kΩ)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of line output (3.5mm output, CD, OS mode)			
THD+N	<0.027%(1kHz/0dB @ 10KΩ)	SNR	≥ 110dB(A-weighted)
Crosstalk	≥ 100dB	Noise floor	<8.5uV(A weight)
Dynamic range	≥ 94dB (A-weighted)	Line Output Level	2.8Vrms(1kHz@10kΩ)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of balanced line output (4.4mm output, CD, OS mode, desktop mode)			
THD+N	<0.029%(1kHz/0dB @ 10KΩ)	SNR	≥ 110dB (A-weighted)
Crosstalk	≥ 104dB	Noise floor	<18.4uV(A weight)
Dynamic range	≥ 94dB (A-weighted)	Line Output Level	6.5Vrms(1kHz@10kΩ)
Frequency response	20Hz ~ 20KHz: attenuation <1.5dB		
Performance and parameters of balanced line output (4.4mm output, CD, OS mode)			