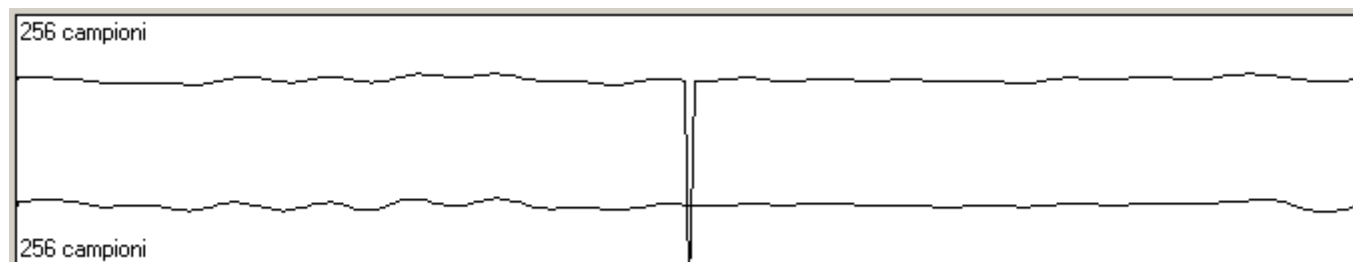


**Fattore di Cresta del segnale musicale  
Giuseppe Verdi : "Aida"**

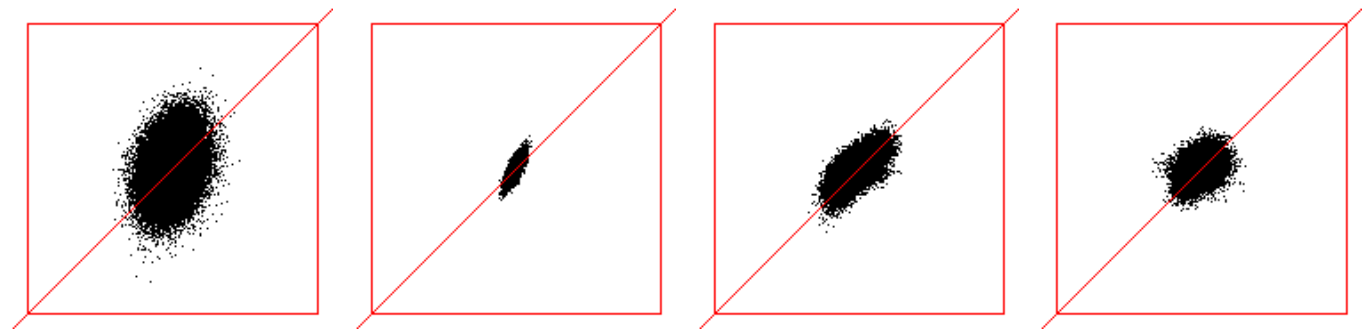
Aida di Giuseppe Verdi diretta da Abbado con Domingo e Ricciarelli, coro orchestra della Scala di Milano. (DG - registrazione digitale del 1982). Qui troviamo, nella penultima traccia del terzo CD, un valore di CF superiore a 46. Indagando più a fondo però si scopre che il picco che genera questo valore così alto è in realtà una anomalia.



Per il resto la registrazione presenta figure di Lissajous molto regolari, Fattori di cresta alti (da 5.41 a 27.14 con 5 tracce su 35 minori di 10) ASDA concentrata sotto al 3% della MMR senza di saturazioni o limitazioni di ampiezza. Questo CD spiega bene perchè le dimostrazioni dei diffusori acustici vengono fatte preferibilmente con la musica classica.

Traccia	Max	CF	Slew rate
---------	-----	----	-----------

Aida_1_0127217	17.85	0.13	
Aida_1_0207346	11.15	0.08	
Aida_1_0314730	15.19	0.23	
Aida_1_0411628	14.70	0.16	
Aida_1_0517278	11.08	0.22	
Aida_1_0618153	14.07	0.21	
Aida_1_0721386	8.99	0.28	
Aida_1_0817586	19.01	0.17	
Aida_1_0903780	15.02	0.03	
Aida_1_1016685	20.26	0.23	
Aida_1_1117912	9.72	0.23	
Aida_2_0110031	24.46	0.08	
Aida_2_0218031	19.03	0.20	
Aida_2_0320943	18.27	0.21	
Aida_2_0423104	17.61	0.26	
Aida_2_0520086	11.35	0.23	
Aida_2_0616924	10.81	0.32	
Aida_2_0720391	14.96	0.25	
Aida_2_0817210	5.41	0.30	cf min
Aida_2_0909723	14.53	0.12	
Aida_2_1019740	13.77	0.22	
Aida_2_1122374	9.59	0.30	
Aida_2_1219734	8.76	0.41	
Aida_3_0106121	14.93	0.06	
Aida_3_0215604	27.14	0.14	cf max
Aida_3_0317744	14.68	0.28	
Aida_3_0416821	15.76	0.22	
Aida_3_0519486	15.53	0.18	
Aida_3_0623324	10.56	0.29	
Aida_3_0717336	19.84	0.16	
Aida_3_0822999	14.87	0.32	
Aida_3_0922465	20.16	0.19	
Aida_3_1025285	10.84	0.33	
Aida_3_1127871	46.44	1.49	CF anomalo
Aida_3_1215824	23.17	0.48	

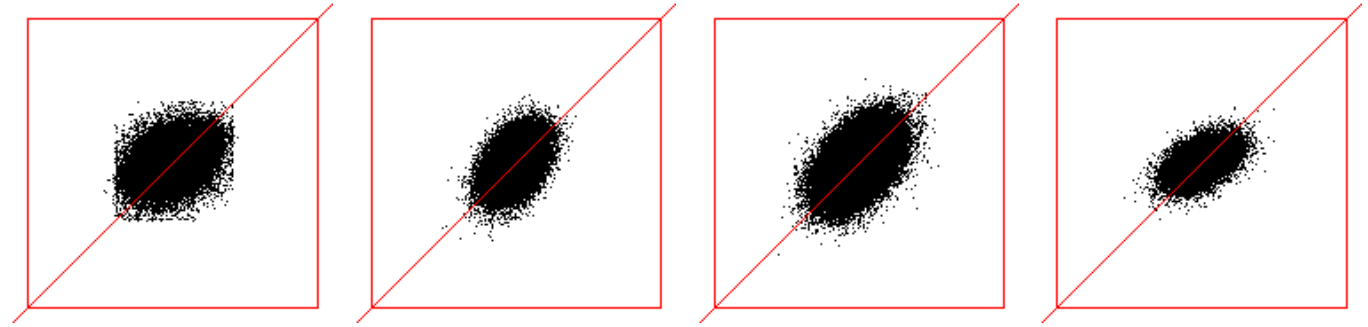


Traccia1\_1

Traccia2\_1

Traccia3\_1

Traccia4\_1

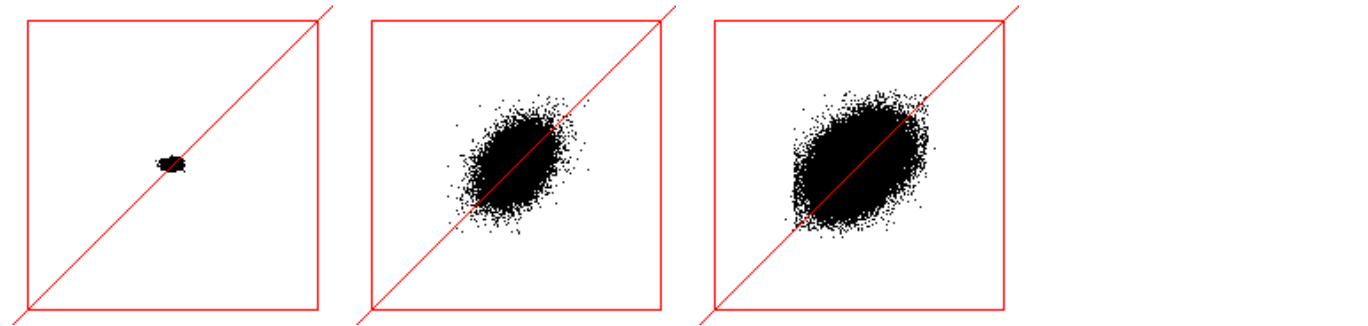


Traccia5\_1

Traccia6\_1

Traccia7\_1

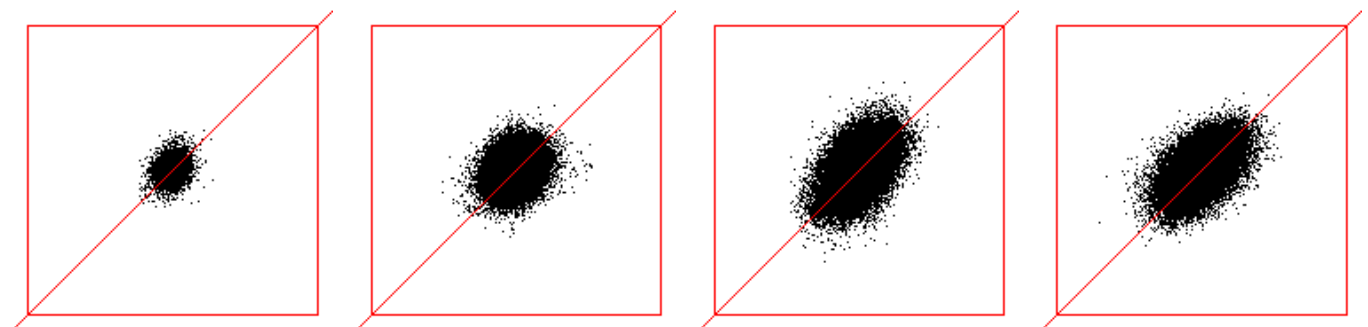
Traccia8\_1



Traccia9\_1

Traccia10\_1

Traccia11\_1

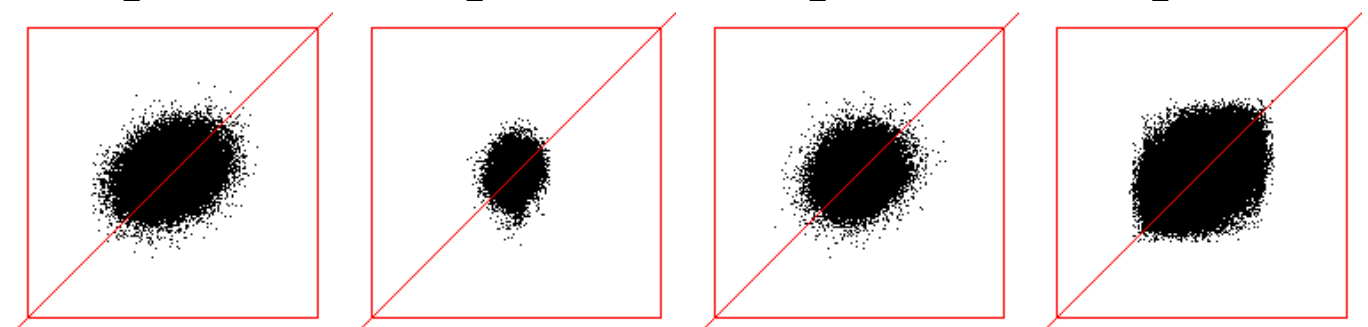


Traccia12\_1

Traccia13\_1

Traccia14\_1

Traccia15\_1



Traccia1\_2

Traccia2\_2

Traccia3\_2

Traccia4\_2

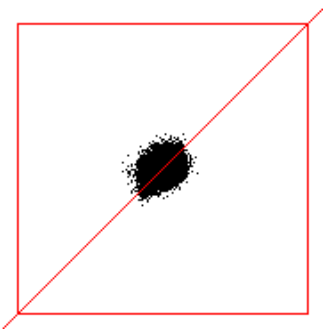


Traccia5\_2

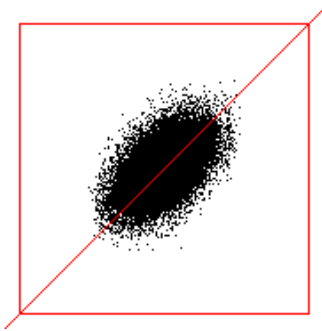
Traccia6\_2

Traccia7\_2

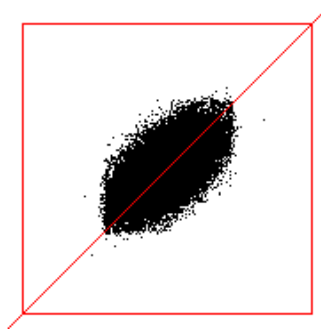
Traccia8\_2



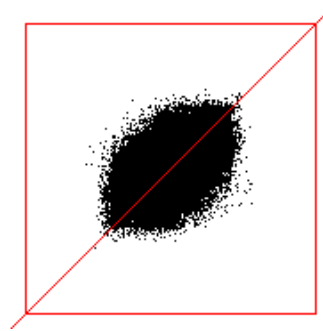
Traccia9\_2



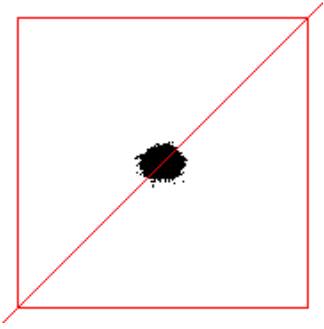
Traccia10\_2



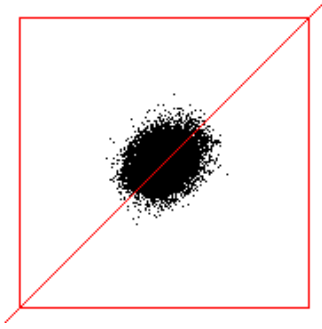
Traccia11\_2



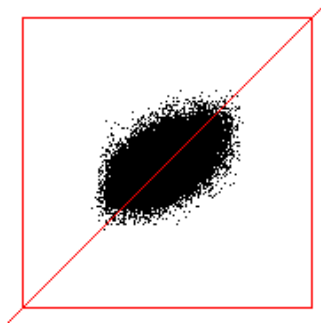
Traccia12\_2



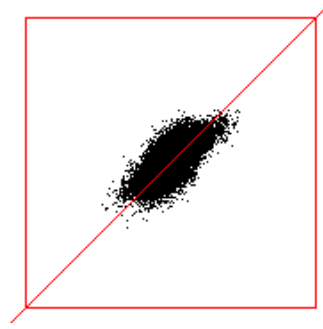
Traccia1\_3



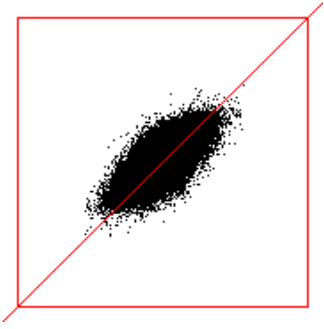
Traccia2\_3



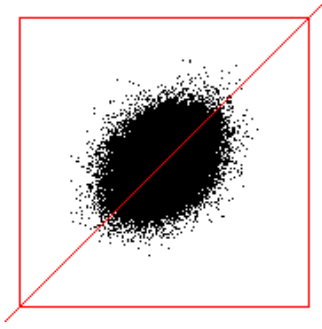
Traccia3\_3



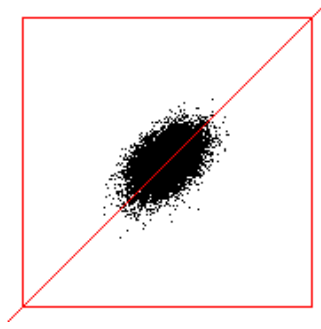
Traccia4\_3



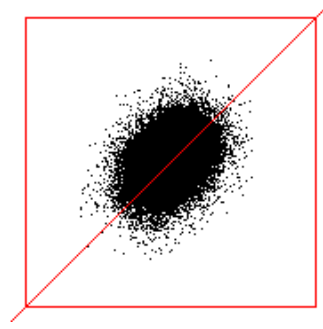
Traccia5\_3



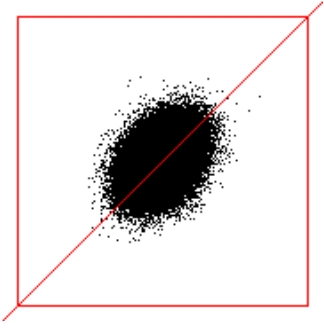
Traccia6\_3



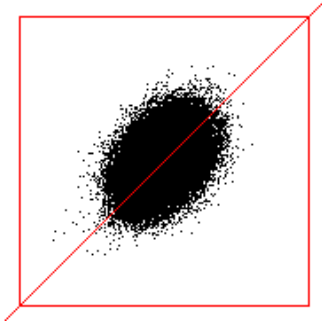
Traccia7\_3



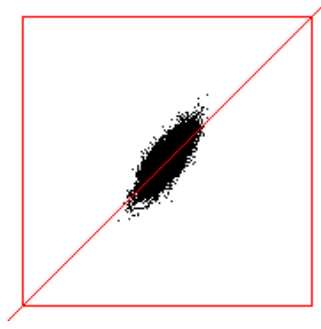
Traccia8\_3



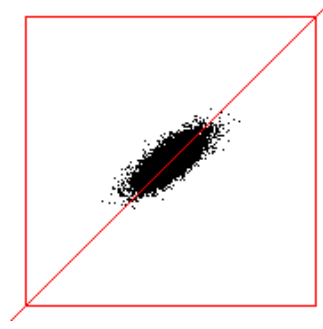
Traccia9\_3



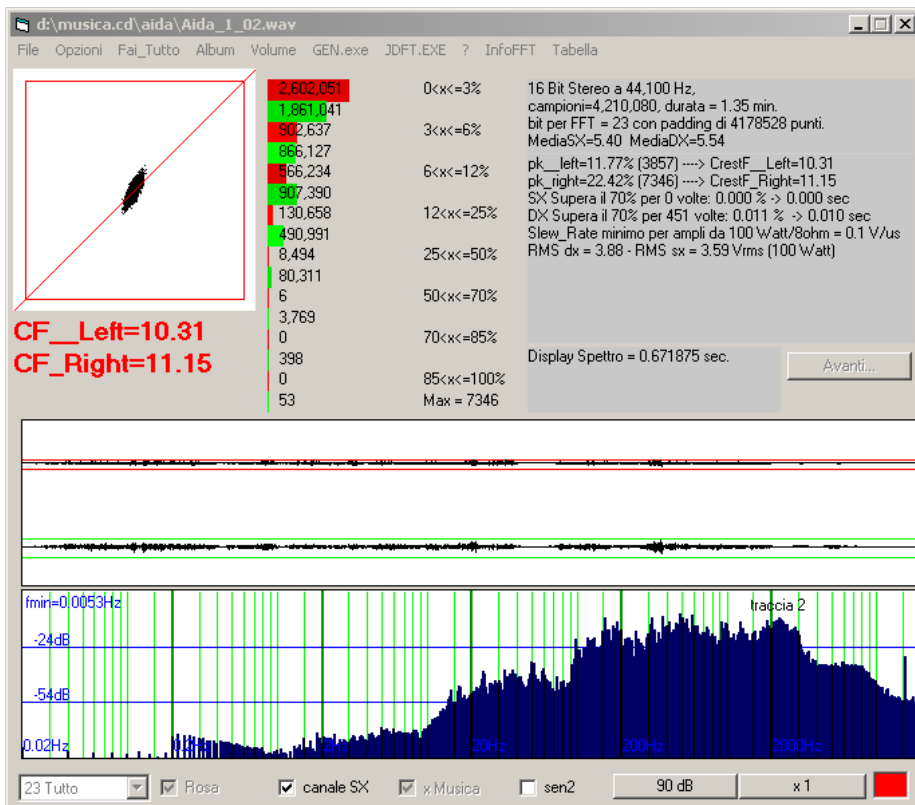
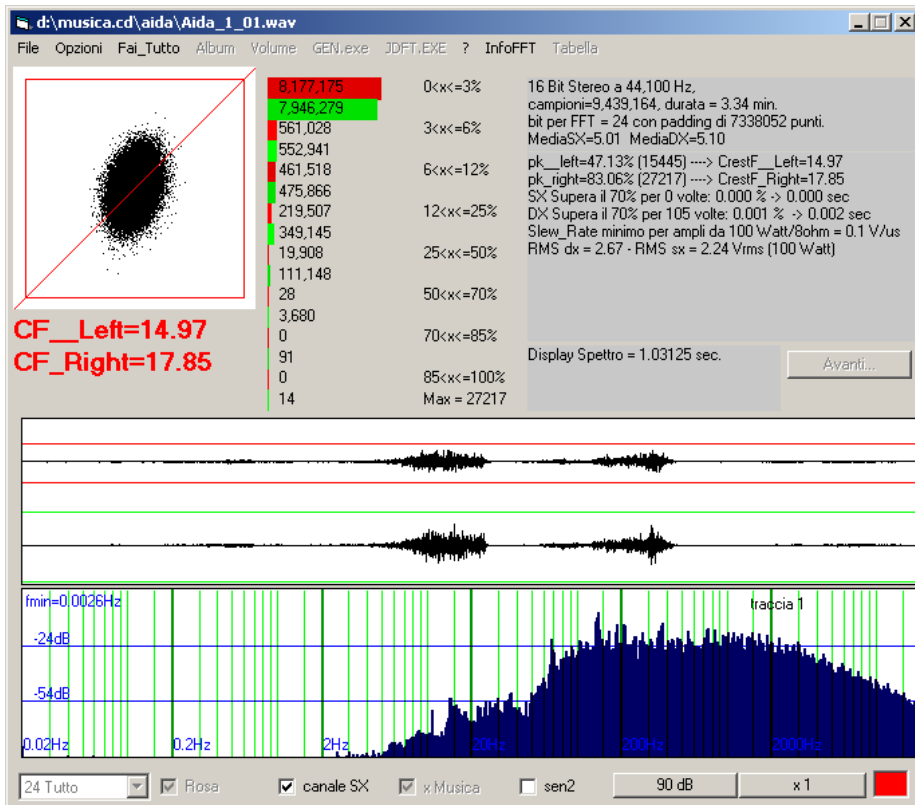
Traccia10\_3



Traccia11\_3

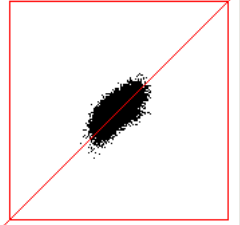


Traccia12\_3



d:\musica.cd\aida\Aida\_1\_03.wav

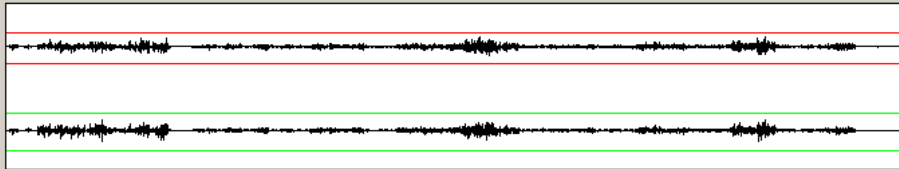
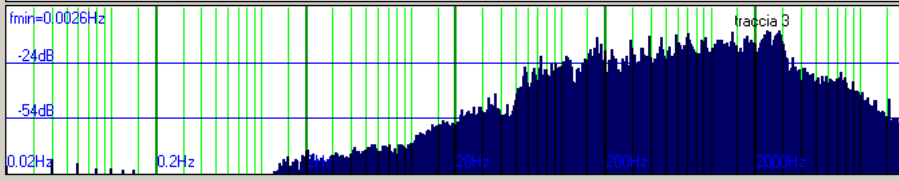
File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



7,352,346	0<x<=3%	16 Bit Stereo a 44,100 Hz.
7,493,259		campioni=12,024,600, durata = 4.33 min.
2,297,053	3<x<=6%	bit per FFT = 24 con padding di 4752616 punti.
2,258,388		MediaSX=5.07 MediaDX=5.28
1,581,933	6<x<=12%	pk_left=36.41% (11930) ----> CrestF_Left=12.30
1,502,694		pk_right=44.95% (14730) ----> CrestF_Right=15.19
660,386	12<x<=25%	SX Supera il 70% per 20 volte: 0.000 % -> 0.000 sec
628,905		DX Supera il 70% per 203 volte: 0.002 % -> 0.005 sec
130,393	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/8ohm = 0.2 V/us
137,228		RMS dx = 3.25 - RMS sx = 2.63 Vrms (100 Watt)
2,469	50<x<=70%	
3,923	70<x<=85%	
20		
184		
0	85<x<=100%	
19	Max = 14730	

CF\_Left=12.30  
CF\_Right=15.19

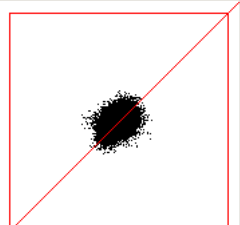
Display Spettro = 1.015625 sec. Avanti...

24 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1

d:\musica.cd\aida\Aida\_1\_04.wav

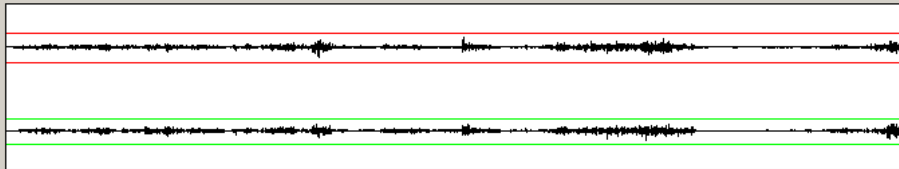
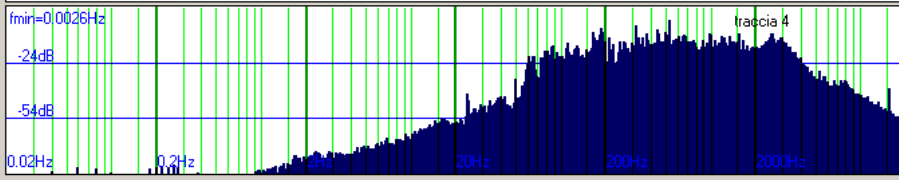
File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



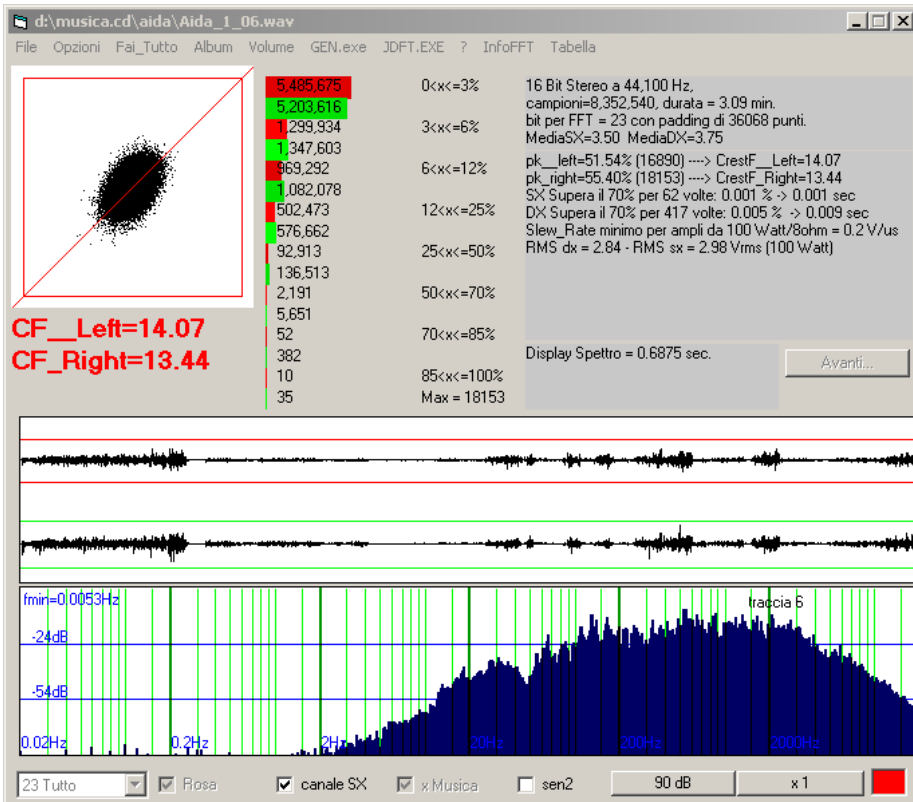
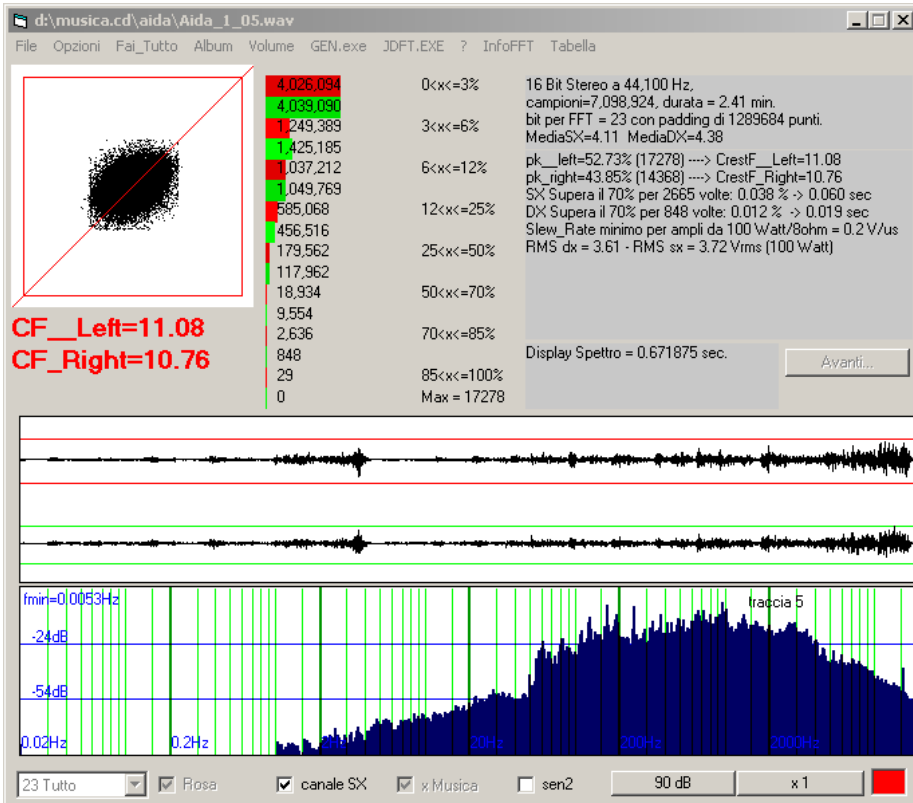
5,016,157	0<x<=3%	16 Bit Stereo a 44,100 Hz.
5,029,990		campioni=8,430,156, durata = 3.11 min.
1,660,137	3<x<=6%	bit per FFT = 24 con padding di 8347060 punti.
1,601,138		MediaSX=4.94 MediaDX=5.19
1,163,340	6<x<=12%	pk_left=35.49% (11628) ----> CrestF_Left=14.70
1,200,178		pk_right=30.44% (9973) ----> CrestF_Right=12.53
494,766	12<x<=25%	SX Supera il 70% per 284 volte: 0.003 % -> 0.006 sec
501,611		DX Supera il 70% per 168 volte: 0.002 % -> 0.004 sec
91,971	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/8ohm = 0.2 V/us
93,423		RMS dx = 2.72 - RMS sx = 3.19 Vrms (100 Watt)
3,501	50<x<=70%	
3,648	70<x<=85%	
249		
165		
35	85<x<=100%	
3	Max = 11628	

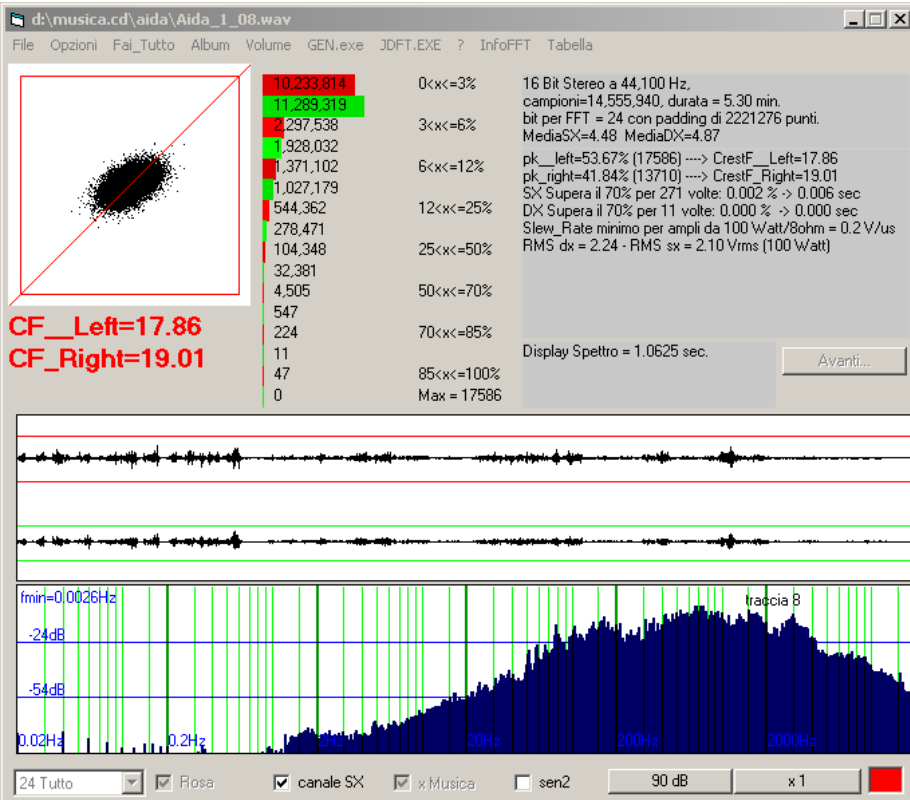
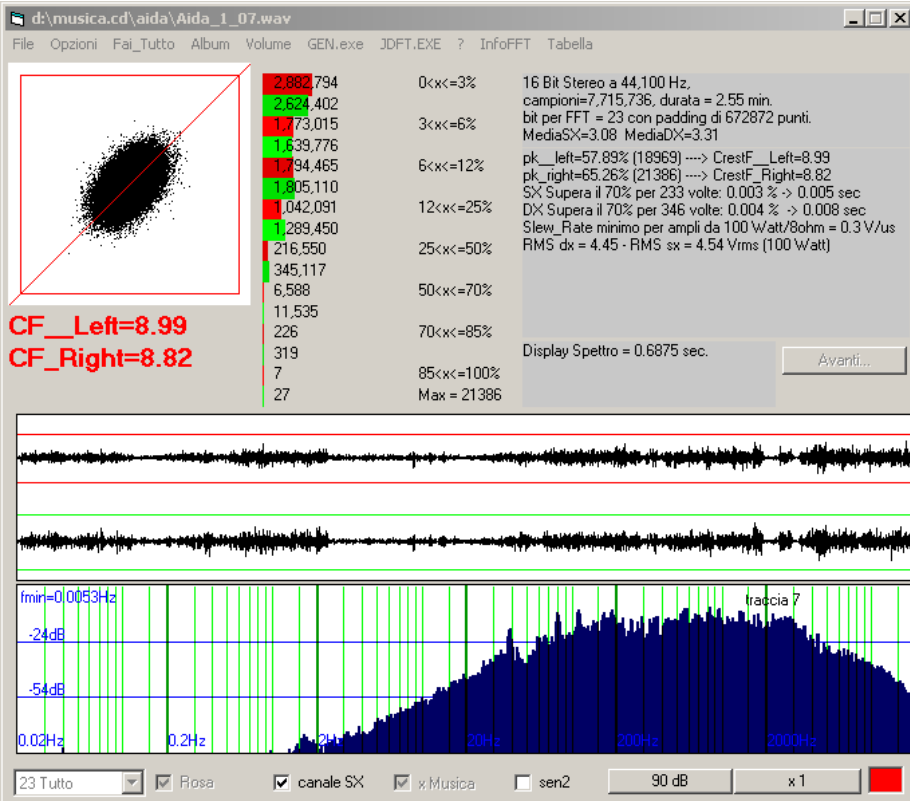
CF\_Left=14.70  
CF\_Right=12.53

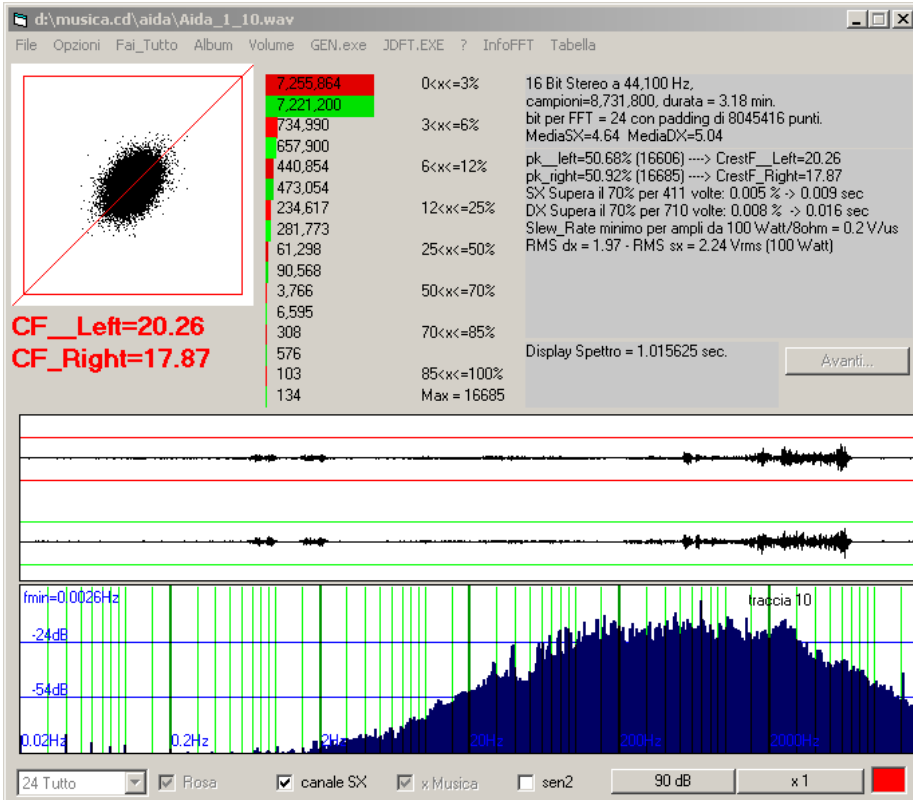
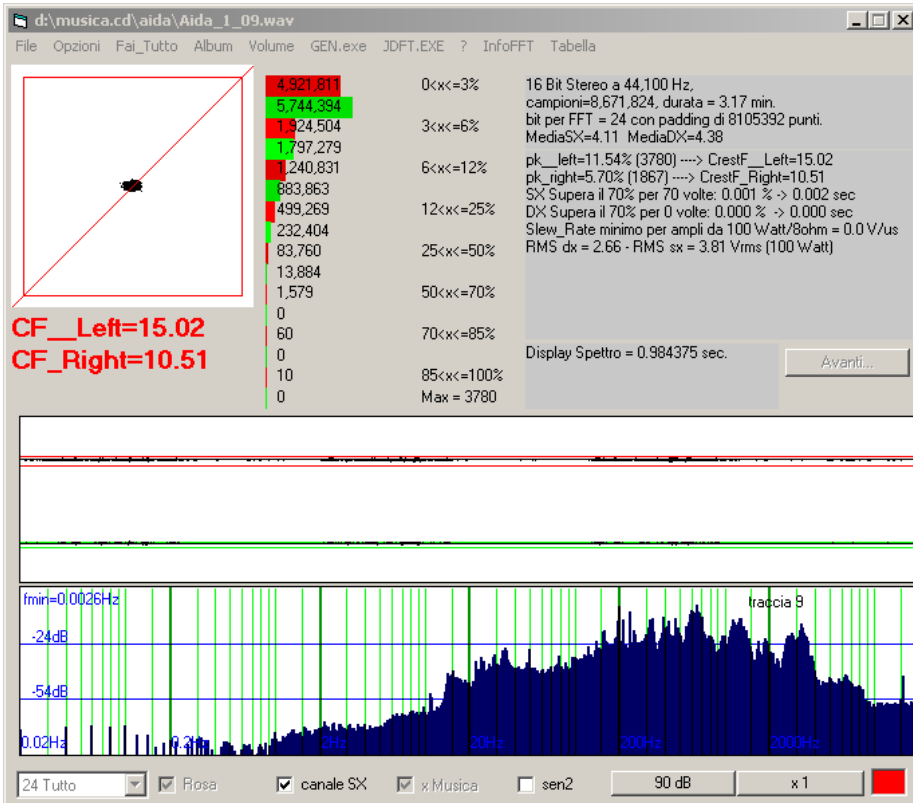
Display Spettro = 1.03125 sec. Avanti...

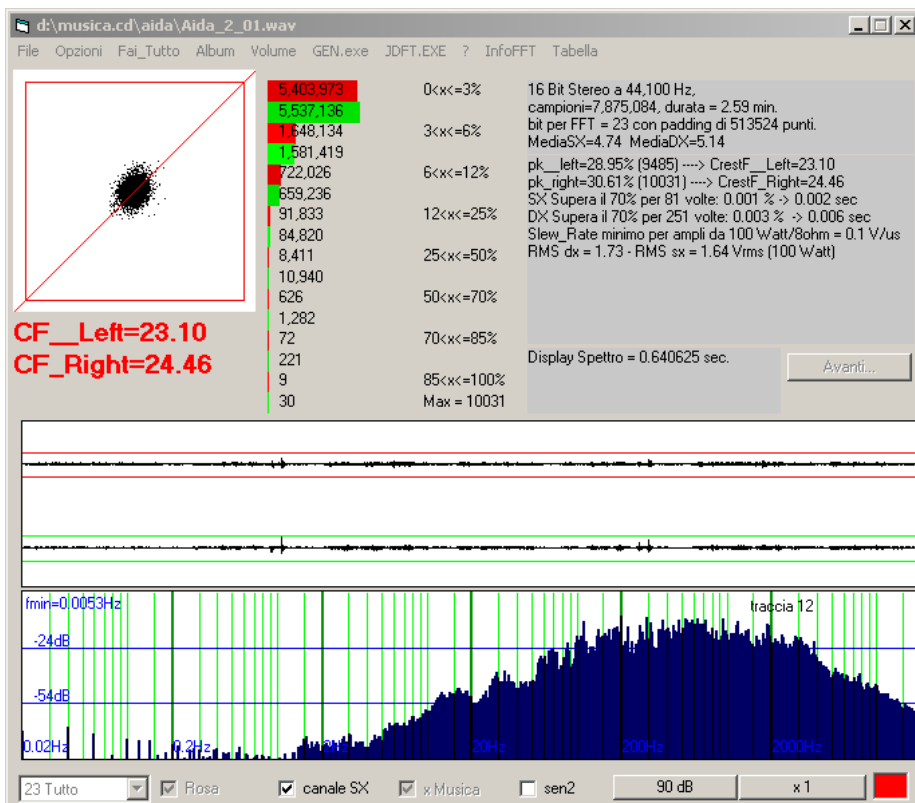
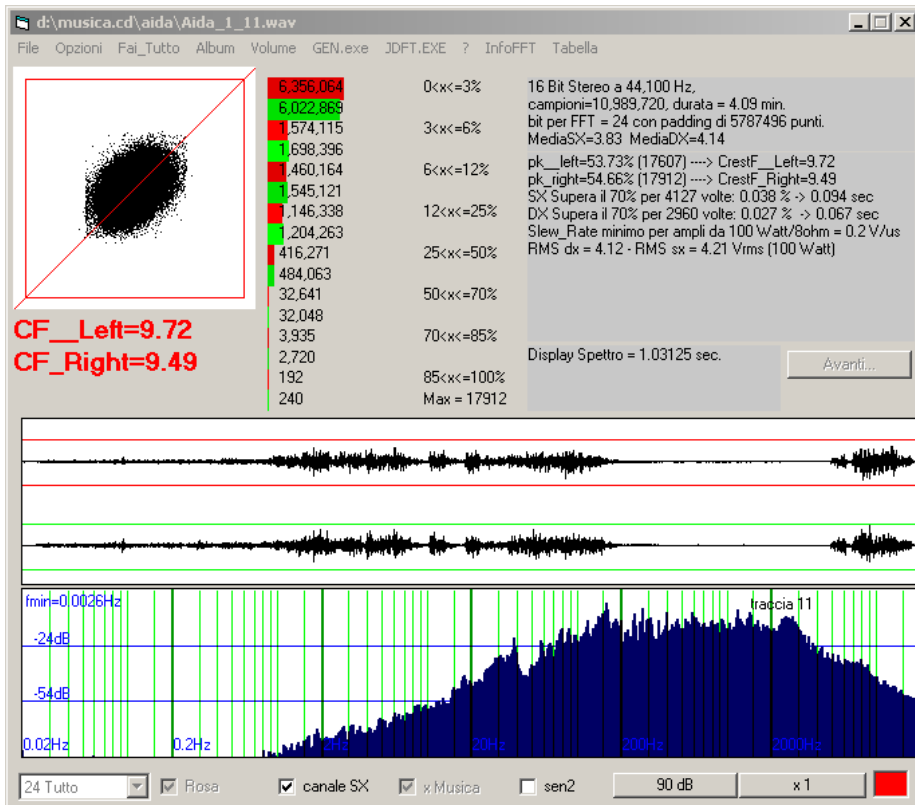
24 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1

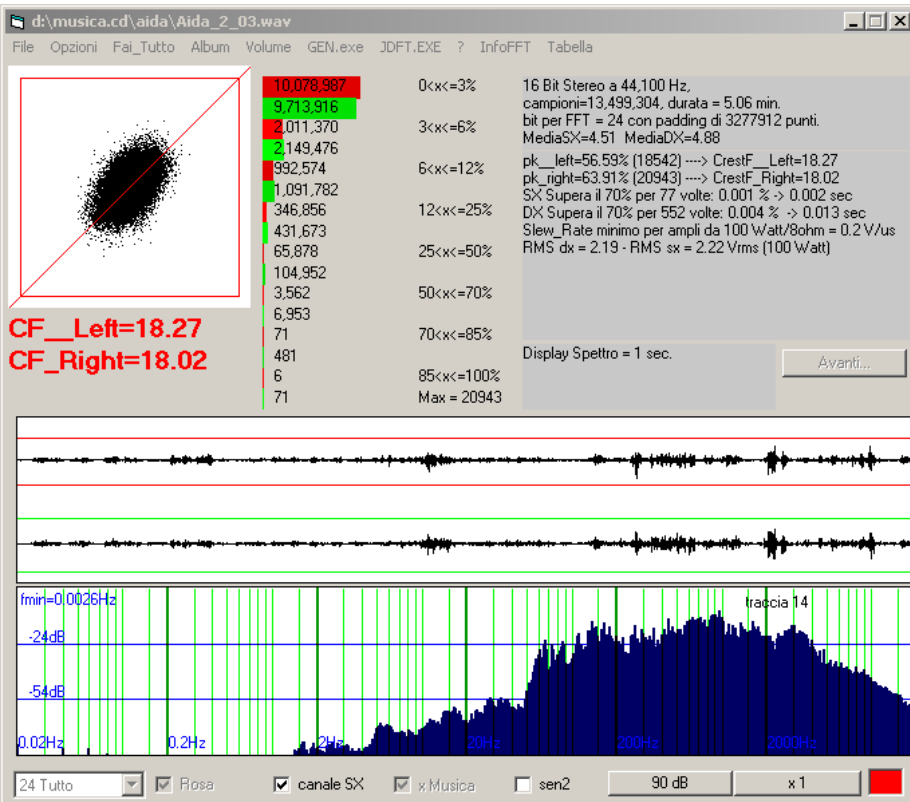
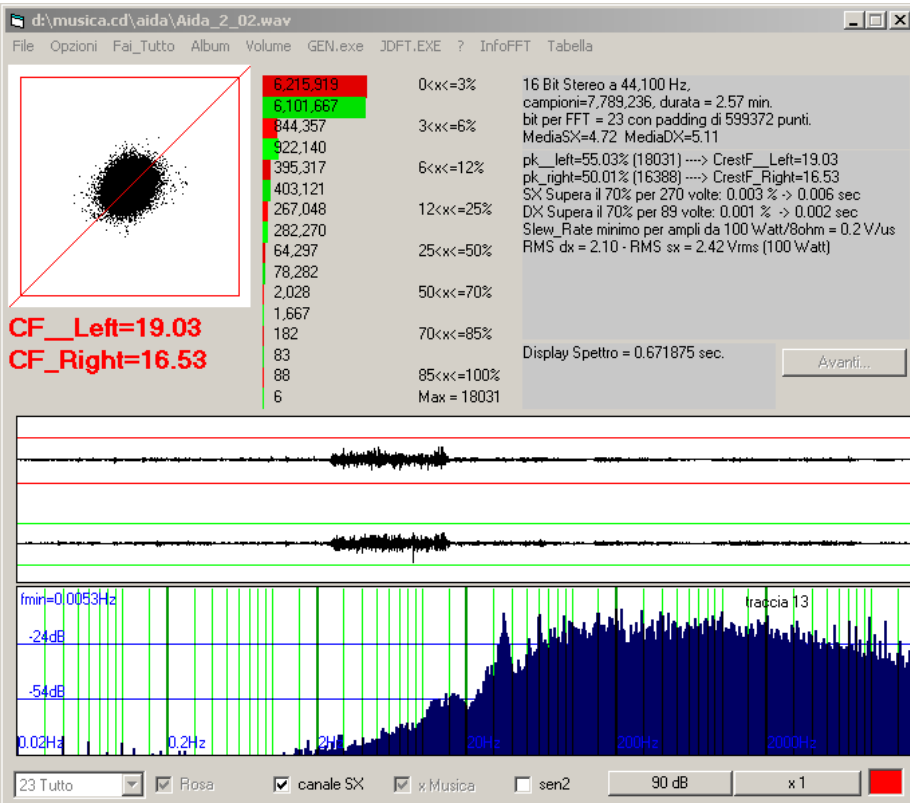






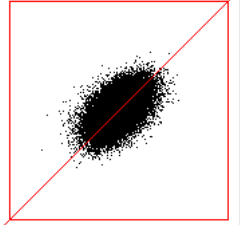






d:\musica.cd\aida\Aida\_2\_04.wav

File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



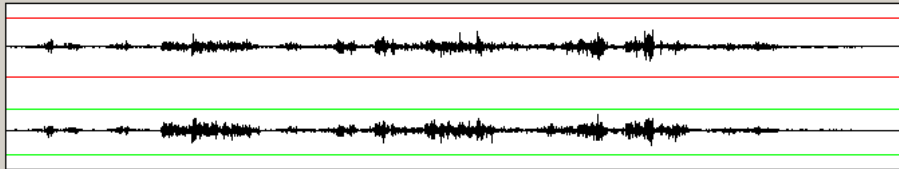
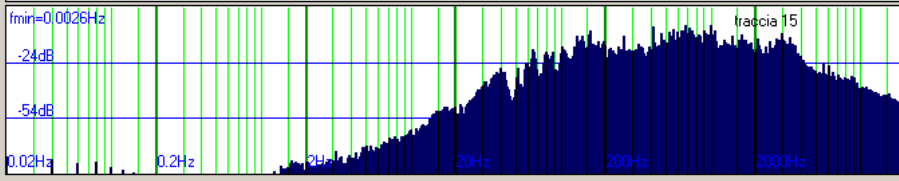
7,358,253	0<x<=3%
7,249,842	3<x<=6%
1,787,675	6<x<=12%
1,652,072	12<x<=25%
1,203,124	25<x<=50%
1,258,388	50<x<=70%
429,895	70<x<=85%
595,033	85<x<=100%
69,427	Max = 23104
94,281	
3,036	
1,891	
117	
33	
13	
0	

16 Bit Stereo a 44,100 Hz.  
 campioni=10,851,540, durata = 4.06 min.  
 bit per FFT = 24 con padding di 5925676 punti.  
 MediaSX=4.28 MediaDX=4.72

pk\_left=70.51% (23104) ----> CrestF\_Left=17.61  
 pk\_right=54.48% (17852) ----> CrestF\_Right=12.40  
 SX Supera il 70% per 130 volte: 0.001 % -> 0.003 sec  
 DX Supera il 70% per 33 volte: 0.000 % -> 0.001 sec  
 Slew\_Rate minimo per ampli da 100 Watt/8ohm = 0.3 V/us  
 RMS dx = 2.27 - RMS sx = 3.23 Vrms (100 Watt)

CF\_Left=17.61  
 CF\_Right=12.40

Display Spettro = 1.03125 sec. Avanti...

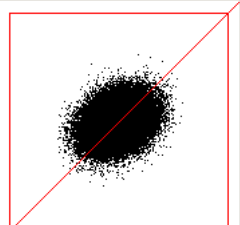



fmir=0.0026Hz traccia 15  
 -24dB  
 -54dB  
 0.02Hz 0.2Hz 2Hz 20Hz 200Hz 2000Hz

24 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1

d:\musica.cd\aida\Aida\_2\_05.wav

File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



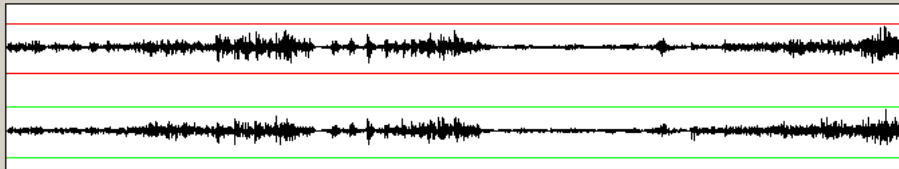
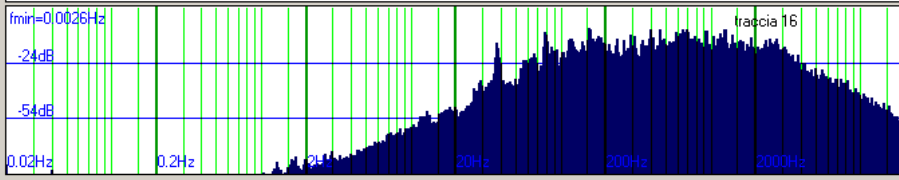
4,247,967	0<x<=3%
4,402,457	3<x<=6%
1,930,649	6<x<=12%
1,957,782	12<x<=25%
1,561,596	25<x<=50%
1,550,921	50<x<=70%
980,328	70<x<=85%
893,142	85<x<=100%
278,509	Max = 20086
206,891	
19,959	
9,254	
1,891	
546	
157	
63	

16 Bit Stereo a 44,100 Hz.  
 campioni=9,121,056, durata = 3.27 min.  
 bit per FFT = 24 con padding di 7656160 punti.  
 MediaSX=4.36 MediaDX=4.84

pk\_left=59.27% (19420) ----> CrestF\_Left=9.89  
 pk\_right=61.30% (20086) ----> CrestF\_Right=11.35  
 SX Supera il 70% per 2048 volte: 0.022 % -> 0.046 sec  
 DX Supera il 70% per 609 volte: 0.007 % -> 0.014 sec  
 Slew\_Rate minimo per ampli da 100 Watt/8ohm = 0.2 V/us  
 RMS dx = 4.04 - RMS sx = 3.52 Vrms (100 Watt)

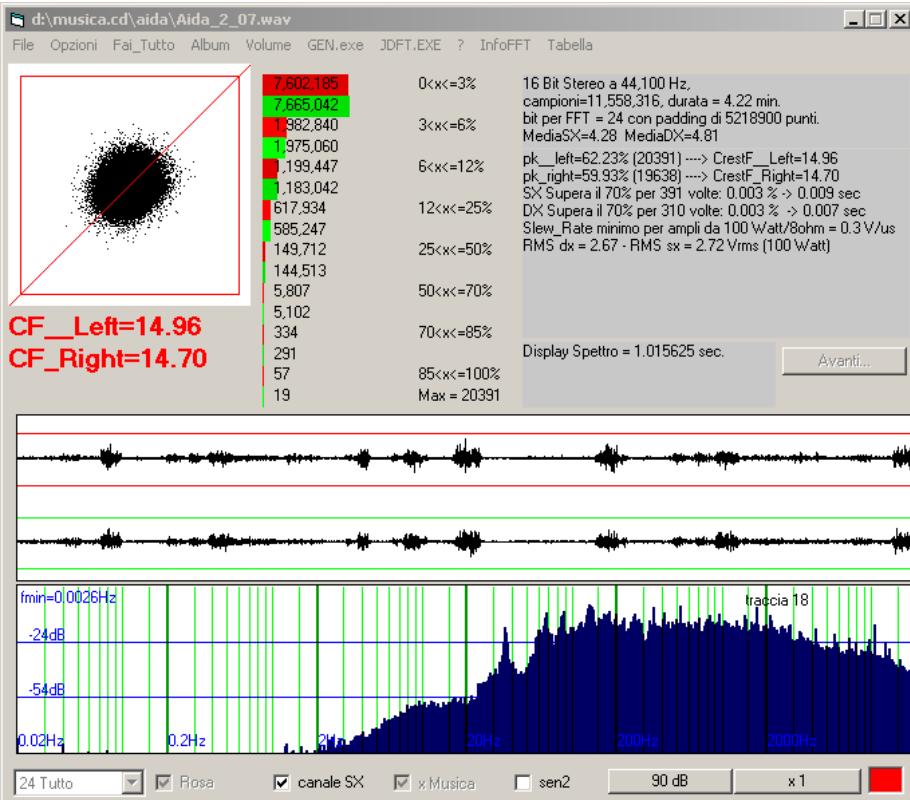
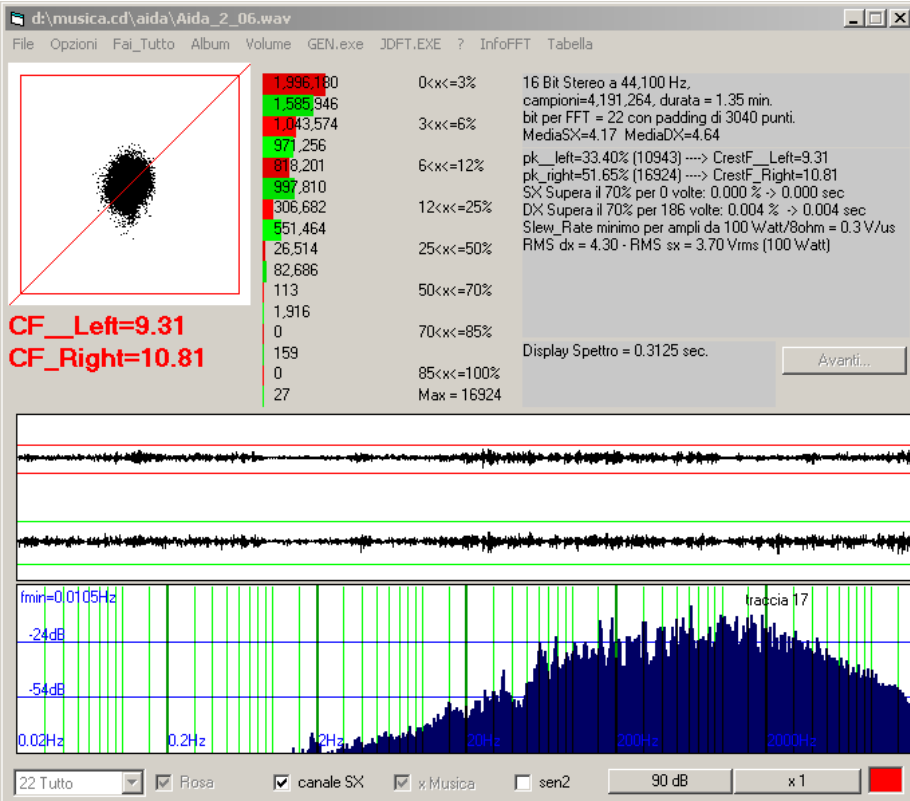
CF\_Left=9.89  
 CF\_Right=11.35

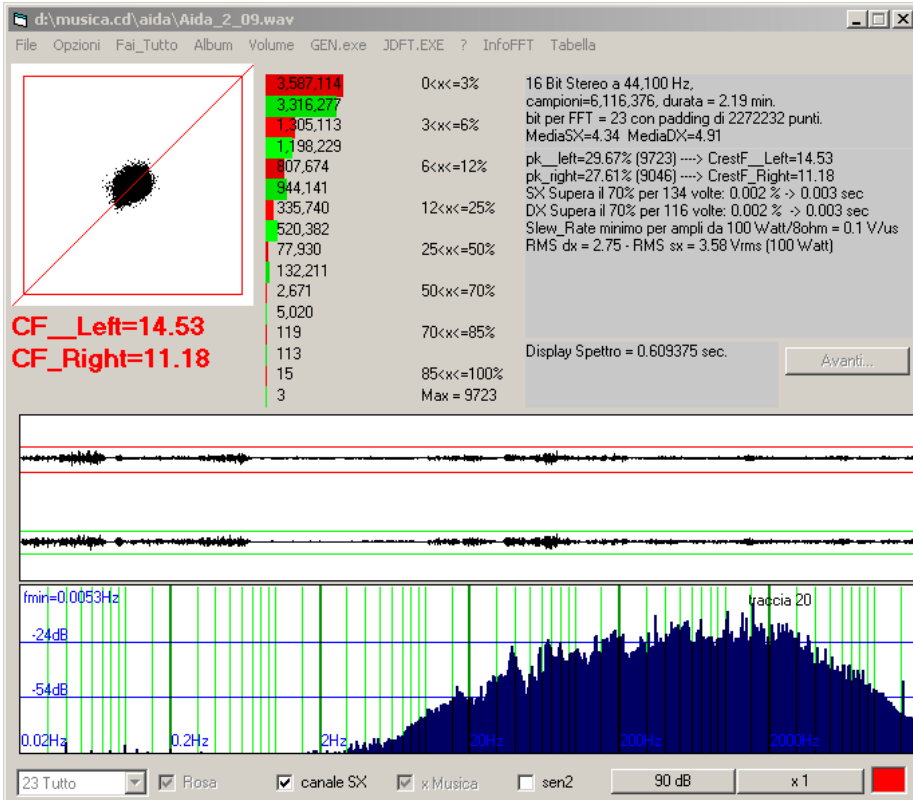
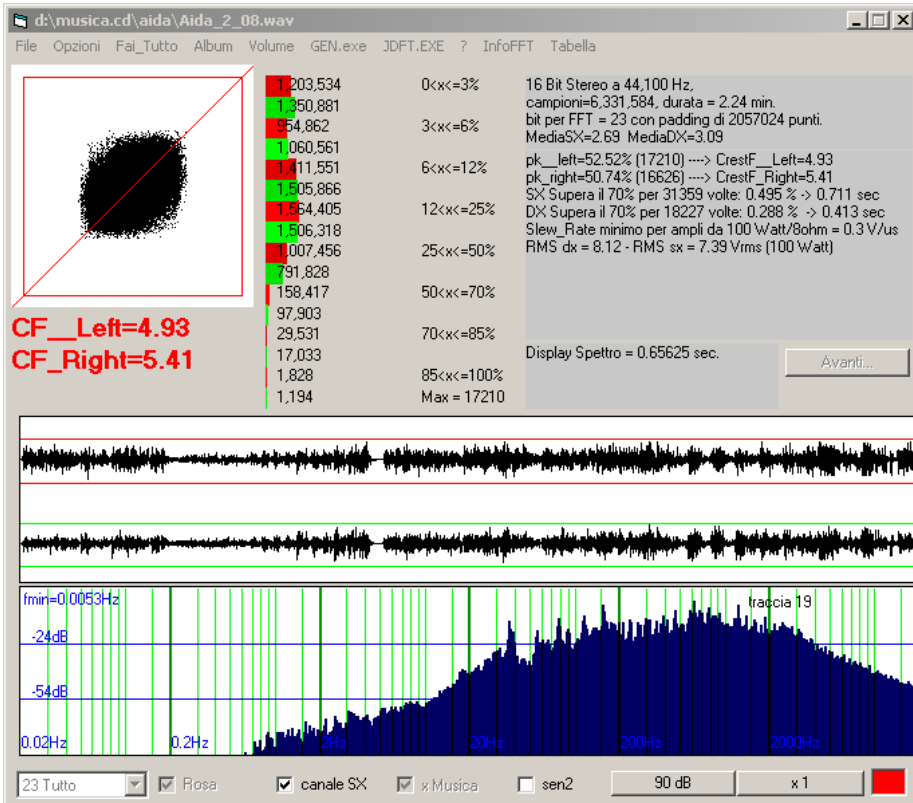
Display Spettro = 1.03125 sec. Avanti...

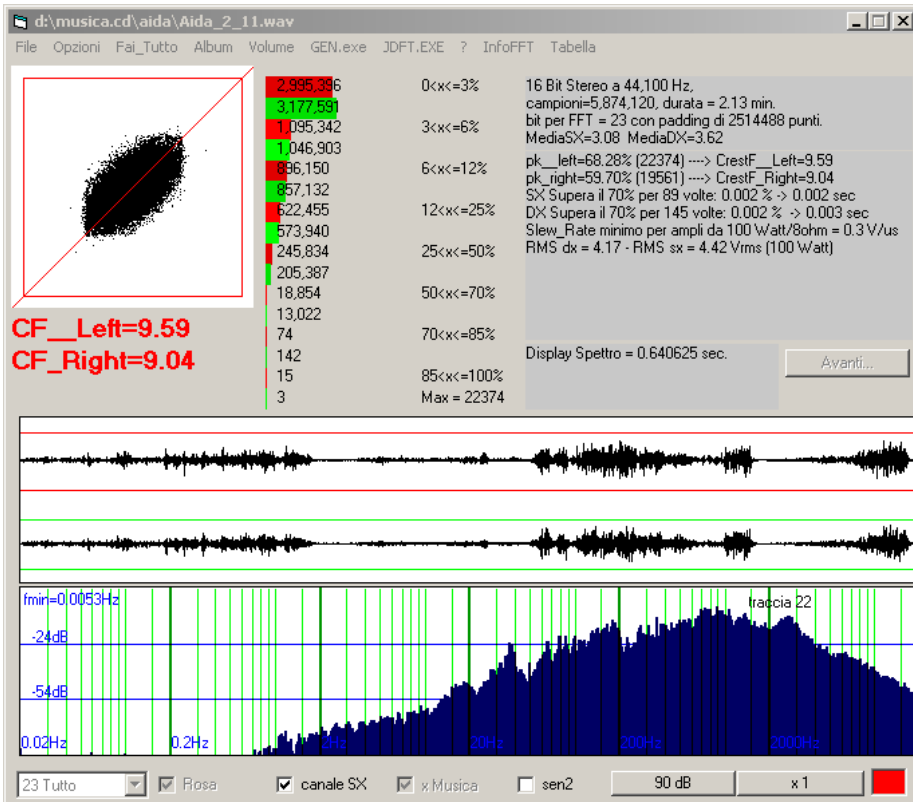
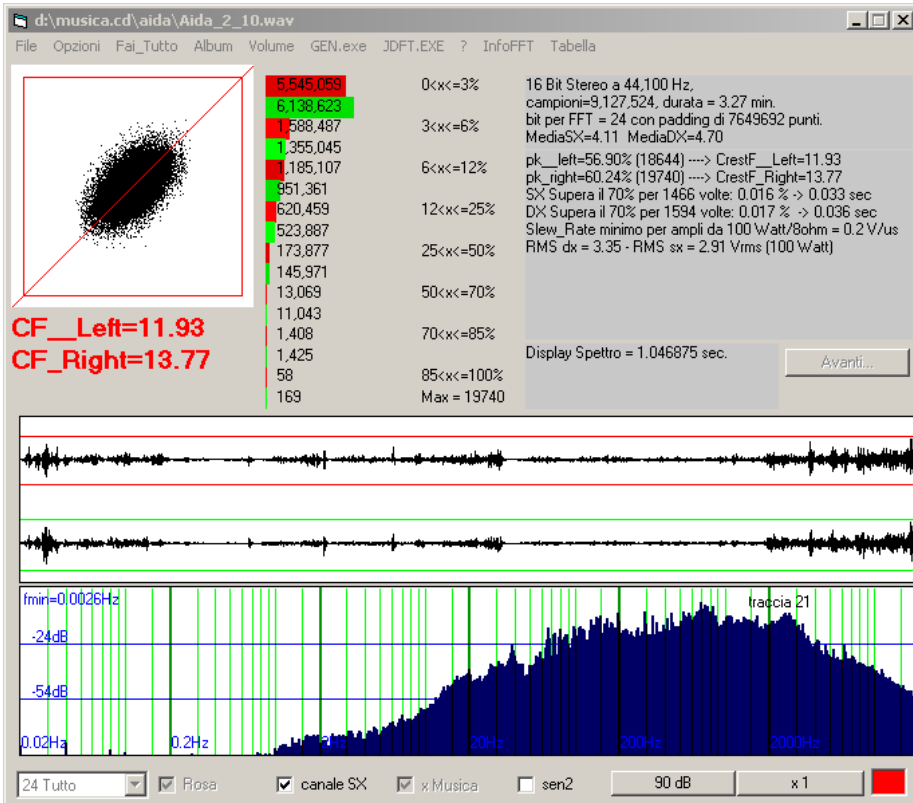



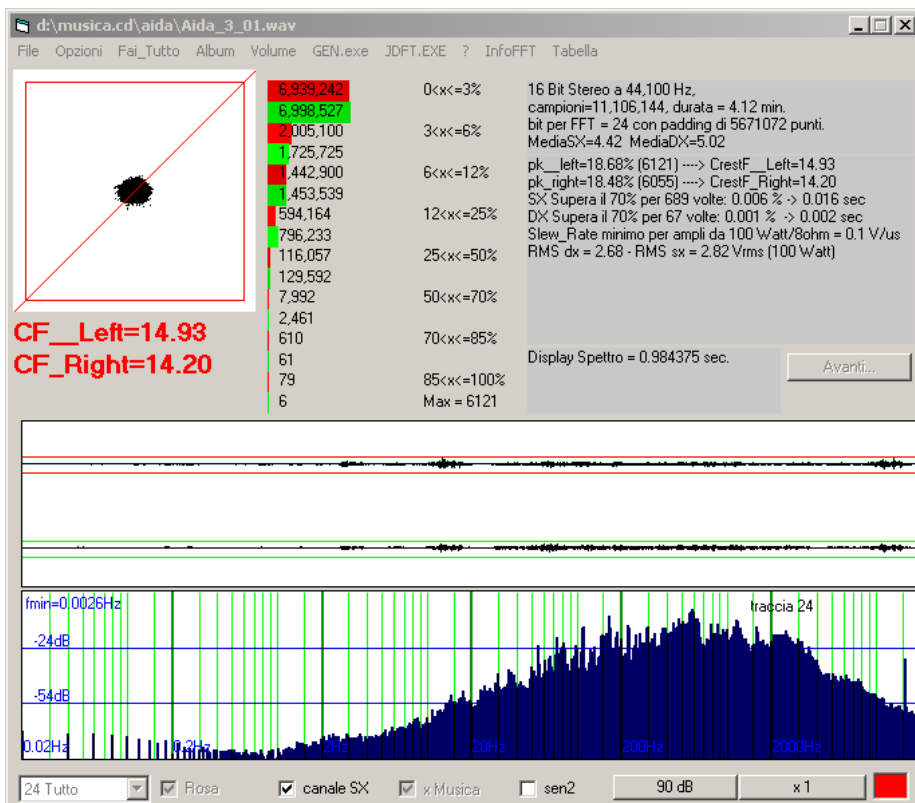
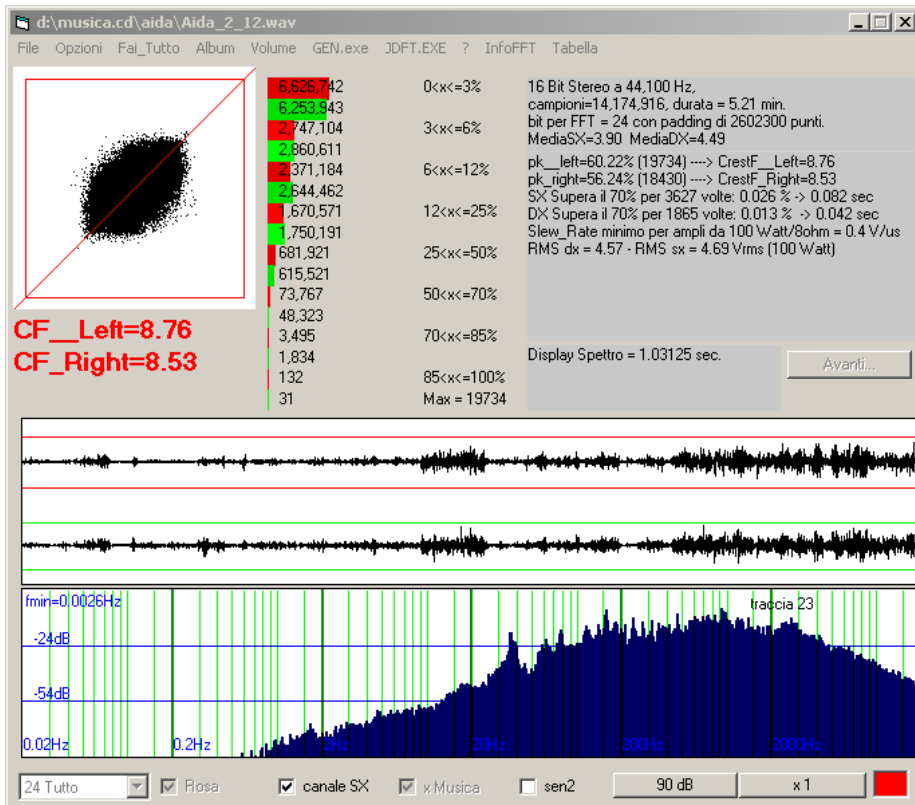
fmir=0.0026Hz traccia 16  
 -24dB  
 -54dB  
 0.02Hz 0.2Hz 2Hz 20Hz 200Hz 2000Hz

24 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1



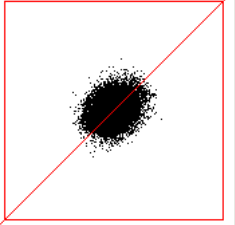






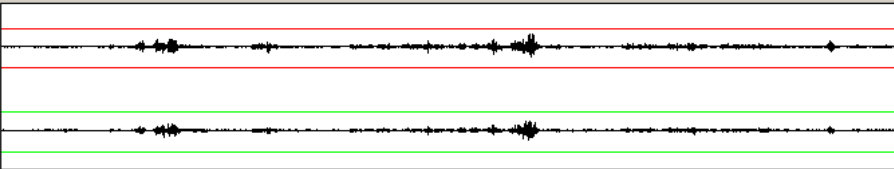
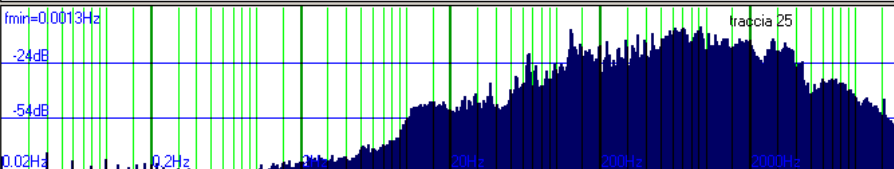
d:\musica.cd\aida\Aida\_3\_02.wav

File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



13,767,576	0<x<=3%	16 Bit Stereo a 44,100 Hz.
14,703,996		campioni=17,393,040, durata = 6.34 min.
2,099,764	3<x<=6%	bit per FFT = 25 con padding di 16161392 punti.
1,731,331		MediaSX=4.62 MediaDX=5.28
1,055,447	6<x<=12%	pk_left=45.89% (15036) ----> CrestF_Left=21.12
672,669		pk_right=47.62% (15604) ----> CrestF_Right=27.14
381,999	12<x<=25%	SX Supera il 70% per 277 volte: 0.002 % -> 0.006 sec
234,582		DX Supera il 70% per 272 volte: 0.002 % -> 0.006 sec
83,585	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/Bohm = 0.1 V/us
47,490		RMS dx = 1.89 - RMS sx = 1.47 Vrms (100 Watt)
4,392	50<x<=70%	
2,700		
249	70<x<=85%	
252		Display Spettro = 1.953125 sec.
28	85<x<=100%	Avanti...
20	Max = 15604	

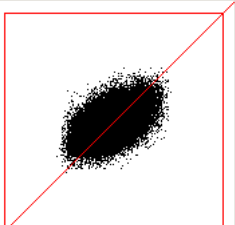
CF\_Left=21.12  
CF\_Right=27.14

25 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1

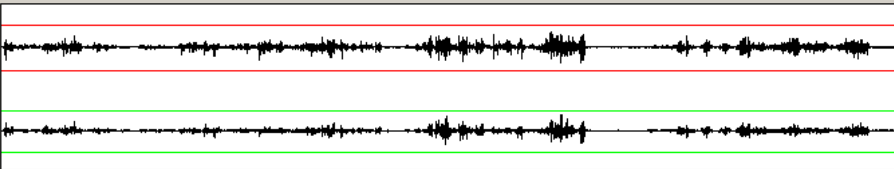
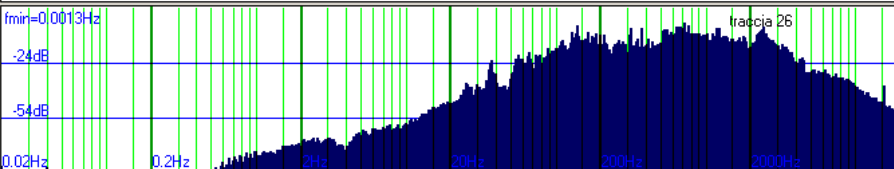
d:\musica.cd\aida\Aida\_3\_03.wav

File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



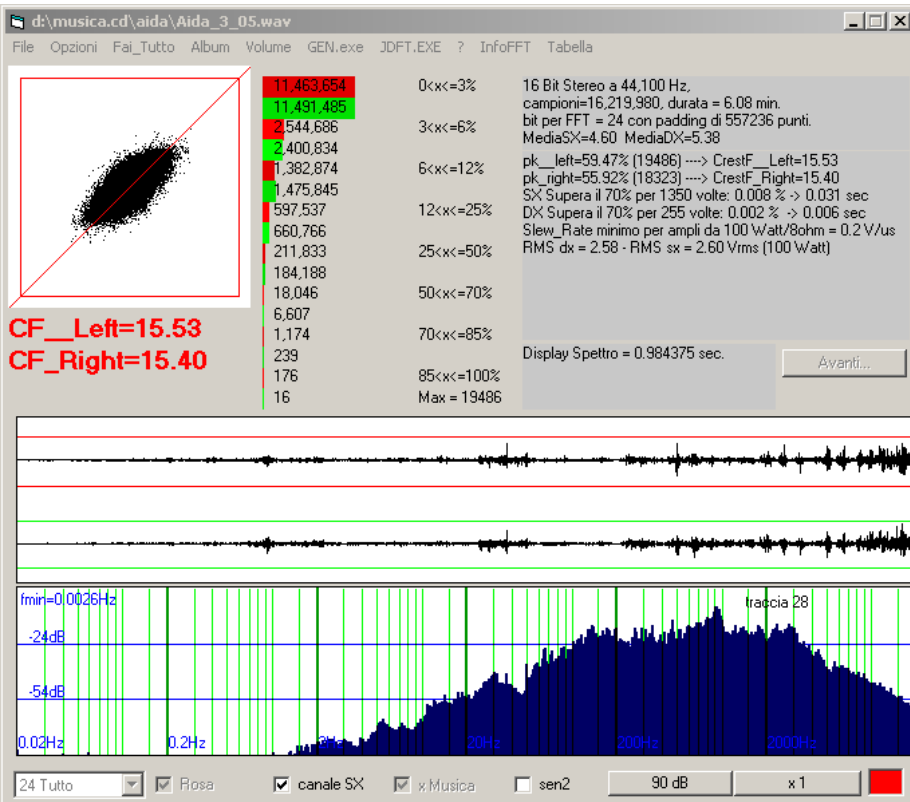
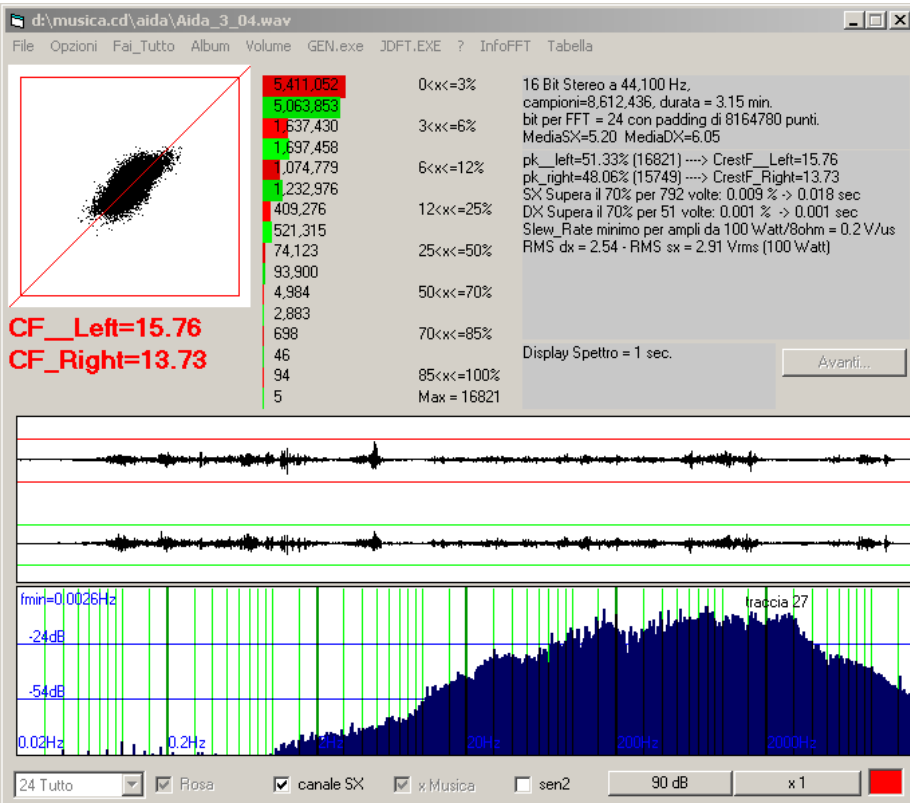
11,516,249	0<x<=3%	16 Bit Stereo a 44,100 Hz.
13,502,733		campioni=20,194,860, durata = 7.38 min.
3,690,471	3<x<=6%	bit per FFT = 25 con padding di 13359572 punti.
3,483,002		MediaSX=4.03 MediaDX=4.68
2,823,700	6<x<=12%	pk_left=54.15% (17744) ----> CrestF_Left=11.24
2,123,660		pk_right=49.65% (16270) ----> CrestF_Right=14.68
1,587,807	12<x<=25%	SX Supera il 70% per 7380 volte: 0.037 % -> 0.167 sec
871,346		DX Supera il 70% per 1363 volte: 0.007 % -> 0.031 sec
524,290	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/Bohm = 0.3 V/us
199,875		RMS dx = 3.56 - RMS sx = 2.72 Vrms (100 Watt)
44,963	50<x<=70%	
12,881		
6,841	70<x<=85%	
1,327		Display Spettro = 2.03125 sec.
539	85<x<=100%	Avanti...
36	Max = 17744	

CF\_Left=11.24  
CF\_Right=14.68

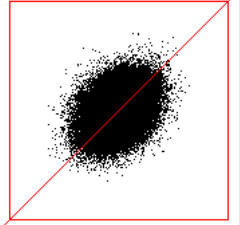
25 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1





d:\musica.cd\aida\Aida\_3\_06.wav

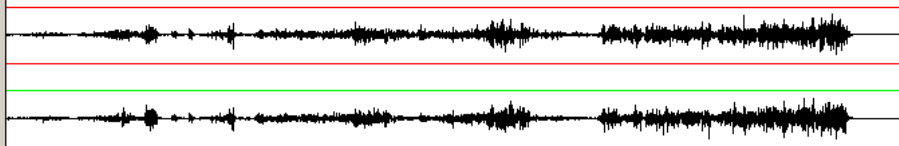
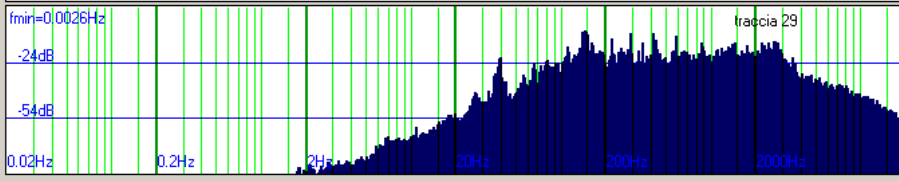
File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



4.548,243	0<x<=3%	16 Bit Stereo a 44,100 Hz, campioni=8,867,040, durata = 3.21 min. bit per FFT = 24 con padding di 7910176 punti. MediaSX=4.35 MediaDX=5.06
4.690,716	3<x<=6%	pk_left=66.60% (21825) ----> CrestF_Left=10.05 pk_right=71.18% (23324) ----> CrestF_Right=10.56
1.586,333	6<x<=12%	SX Supera il 70% per 821 volte: 0.009 % -> 0.019 sec
1.555,044	12<x<=25%	DX Supera il 70% per 848 volte: 0.010 % -> 0.019 sec
1.524,617	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/8ohm = 0.3 V/us
1.400,338	50<x<=70%	RMS dx = 3.98 - RMS sx = 3.79 Vrms (100 Watt)
942,968	70<x<=85%	
923,937	85<x<=100%	
252,046	Max = 23324	
283,141		
12,012		
13,016		
748		
757		
73		
91		

CF\_Left=10.05  
CF\_Right=10.56

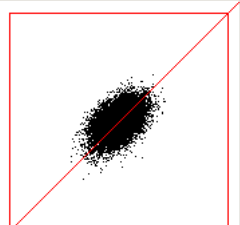
Display Spettro = 1 sec. Avanti...

24 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1

d:\musica.cd\aida\Aida\_3\_07.wav


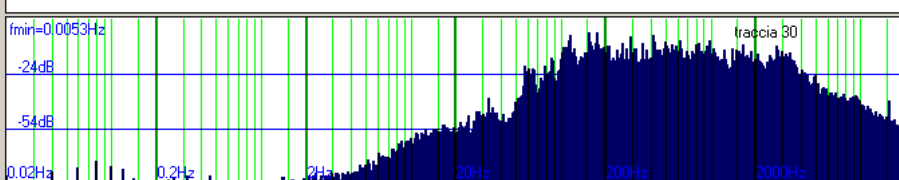
File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella



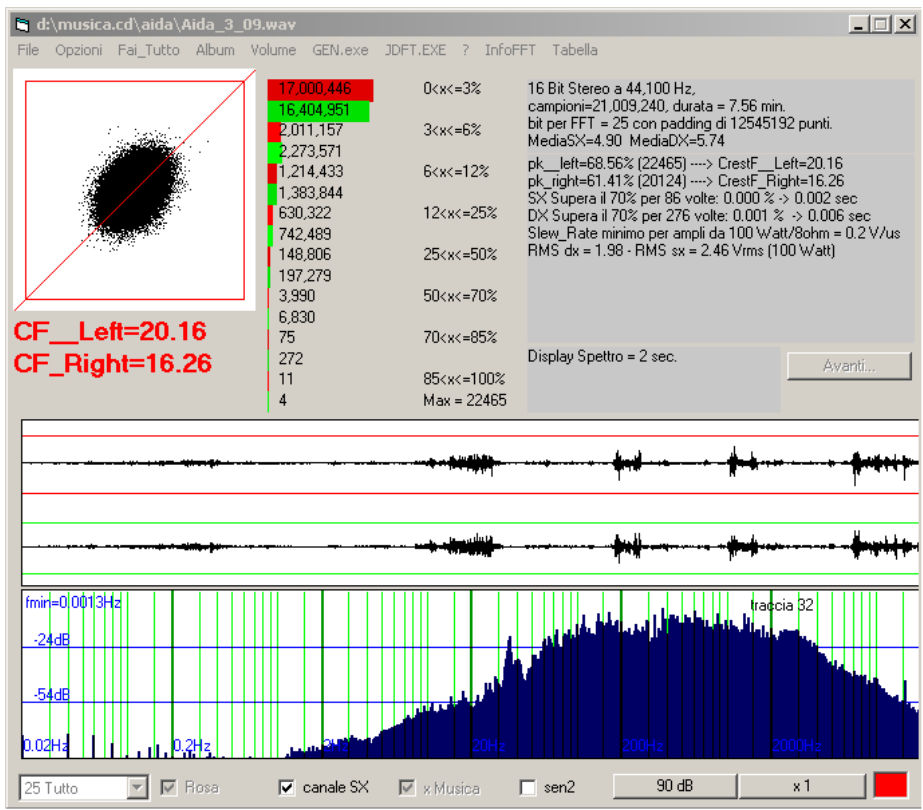
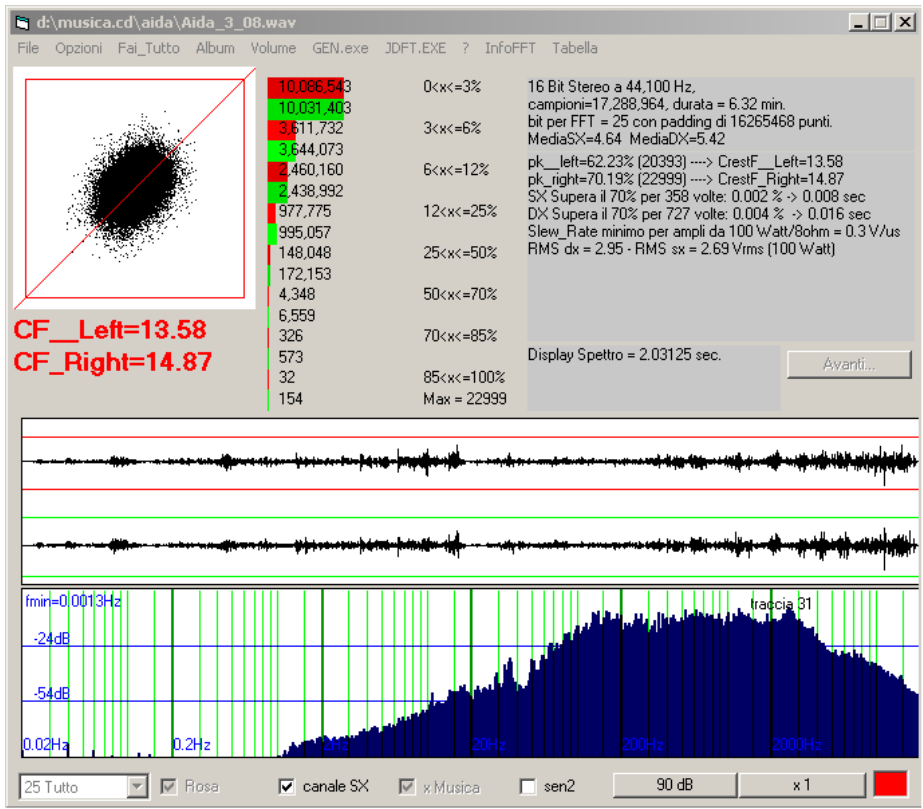
6.343,053	0<x<=3%	16 Bit Stereo a 44,100 Hz, campioni=8,155,560, durata = 3.05 min. bit per FFT = 23 con padding di 233048 punti. MediaSX=4.55 MediaDX=5.32
6.169,615	3<x<=6%	pk_left=48.27% (15816) ----> CrestF_Left=18.71 pk_right=52.91% (17336) ----> CrestF_Right=19.84
973,547	6<x<=12%	SX Supera il 70% per 134 volte: 0.002 % -> 0.003 sec
1,032,155	12<x<=25%	DX Supera il 70% per 167 volte: 0.002 % -> 0.004 sec
560,126	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/8ohm = 0.2 V/us
639,472	50<x<=70%	RMS dx = 2.14 - RMS sx = 2.02 Vrms (100 Watt)
233,455	70<x<=85%	
273,525	85<x<=100%	
43,015	Max = 17336	
38,406		
2,230		
2,220		
124		
143		
10		
24		

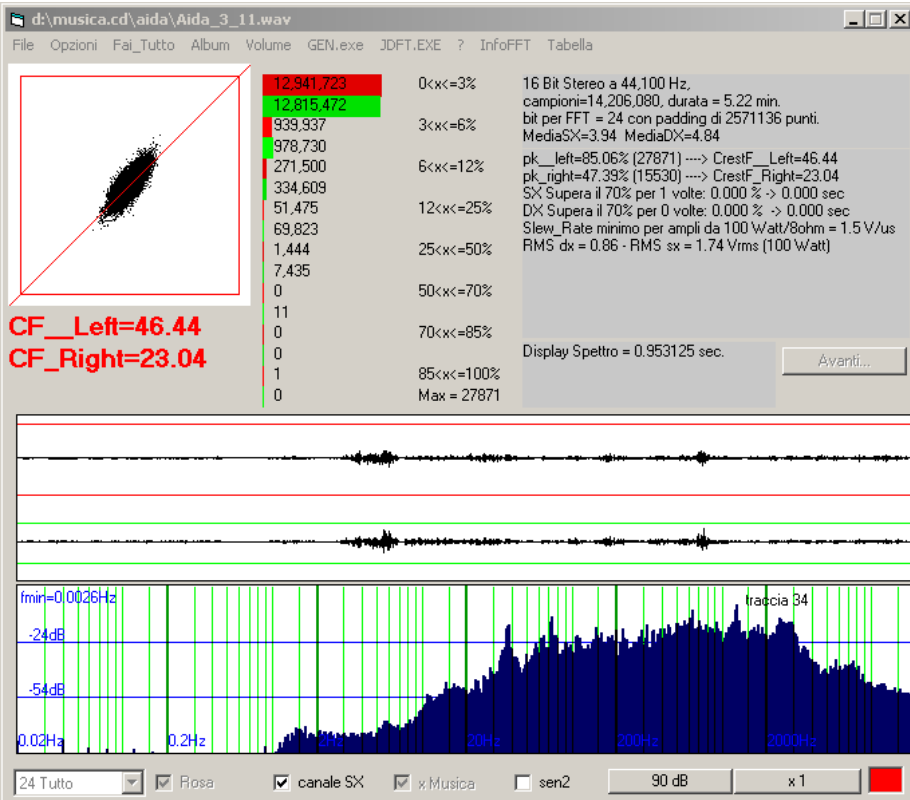
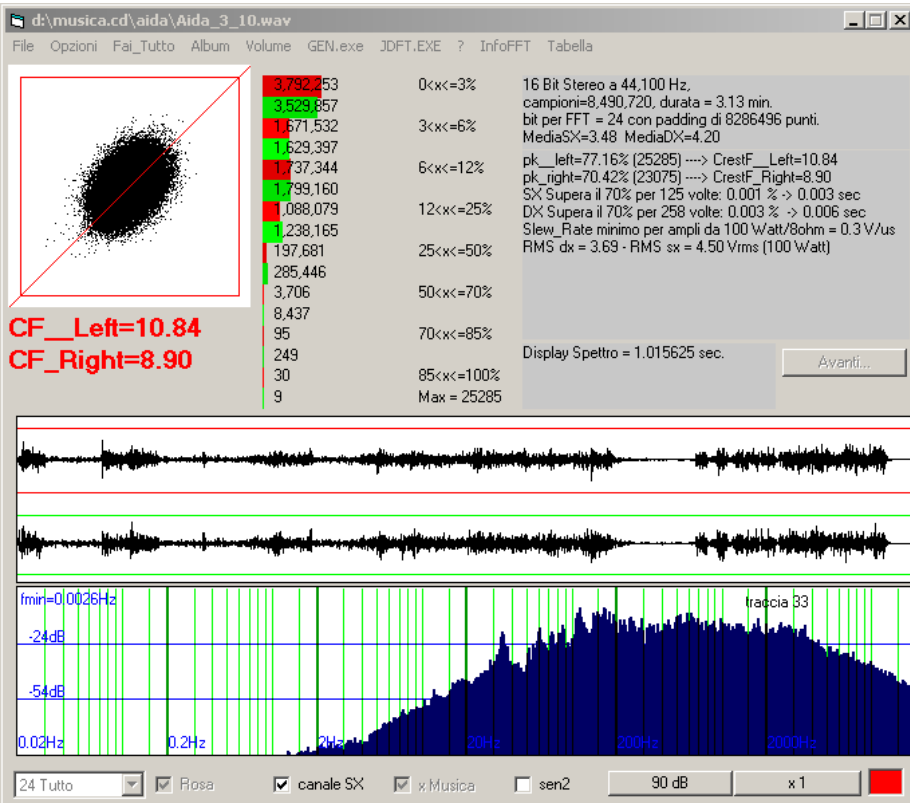
CF\_Left=18.71  
CF\_Right=19.84

Display Spettro = 0.671875 sec. Avanti...

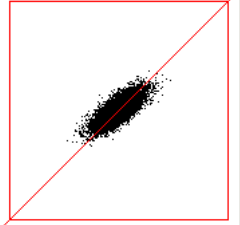
23 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1





d:\musica.cd\aida\Aida\_3\_12.wav

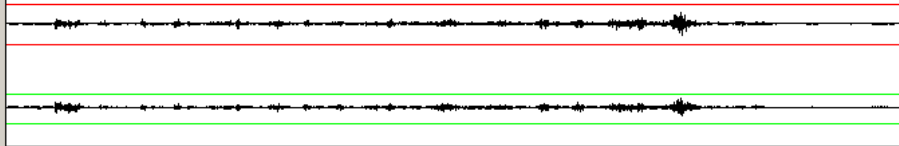
File Opzioni Fai\_Tutto Album Volume GEN.exe JDFT.EXE ? InfoFFT Tabella

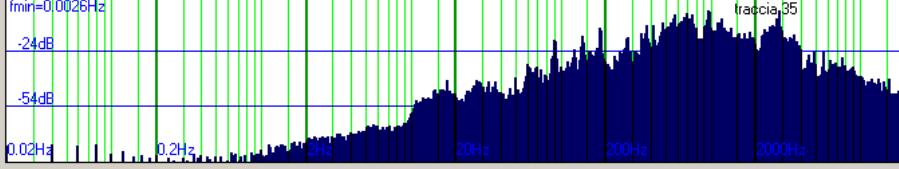


11,074,801	0<x<=3%	16 Bit Stereo a 44,100 Hz.
11,465,548		campioni=14,128,700, durata = 5,20 min.
1,813,789	3<x<=6%	bit per FFT = 24 con padding di 2650516 punti.
1,635,783		MediaSX=4,07 MediaDX=5,27
896,577	6<x<=12%	pk_left=48,29% (15824) ----> CrestF_Left=23,17
772,022		pk_right=35,63% (11675) ----> CrestF_Right=19,57
294,272	12<x<=25%	SX Supera il 70% per 290 volte: 0,002 % -> 0,007 sec
224,953		DX Supera il 70% per 5 volte: 0,000 % -> 0,000 sec
44,458	25<x<=50%	Slew_Rate minimo per ampli da 100 Watt/8ohm = 0,5 V/us
27,672		RMS dx = 1,73 - RMS sx = 2,04 Vrms (100 Watt)
2,513	50<x<=70%	
717		
263	70<x<=85%	
5		
27	85<x<=100%	
0	Max = 15824	

CF\_Left=23.17  
CF\_Right=19.57

Display Spettro = 0.984375 sec. Avanti...





24 Tutto  Rosa  canale SX  x Musica  sen2 90 dB x 1 ■