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Structure of XGD1 Security Sector

1 0x000 Version Number = 0x1 Book Type = 0xD 1 0x001 Maximum Rate = 0xF Disc Size = 0x0 1 0x002 Layer Type = 0x1 Path = 1 Layer Count = 01 0 1 0x003 Track Density = 0x0 Linear Density = 0x1 4 0x004 - 0x007 Data Start Physical Sector 4 0x008 - 0x00A Data End Physical Sector 4 0x00C - 0x00F Layer0 End Physical Sector 1 0x010 Reserved = 0000000 BCA = 0 703 0x011 - 0x2CF Reserved = 0x00
1 0x002 Layer Type = 0x1 Path = 1 Layer Count = 01 0 1 0x003 Track Density = 0x0 Linear Density = 0x1 4 0x004 - 0x007 Data Start Physical Sector 4 0x008 - 0x00A Data End Physical Sector 4 0x00C - 0x00F Layer0 End Physical Sector 1 0x010 Reserved = 0000000 BCA = 0
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1 0x010 Reserved = 0000000 BCA = 0
703 0x011 – 0x2CF Reserved = 0x00
4 0x2D0 – 0x2D3 CPR_MAI Key
44 0x2D4 - 0x2FF Reserved = 0x00
1 0x300 enCrypted Challenge Response Table – Version = 0x01
1 0x301 enCrypted Challenge Response Table – Entries = 0x17
253 0x302 – 0x3FE 23 enCrypted Challenge Responses (9 bytes each)
32 0x3FF – 0x41E Reserved = 0x00
8 0x41F – 0x426 FILETIME – Creation Timestamp?
16 0x427 – 0x436 Unknown 16 bytes (unique for each ISO, early discs are all 0x00)
4 0x437 – 0x43A Reserved = 0x00
16 0x43B – 0x44A Unknown 16 bytes (shared across different ISOs in a time window)
84 0x44B – 0x49E Reserved = 0x00
8 0x49F – 0x4A6 FILETIME – Authoring Timestamp
4 0x4A7 – 0x4AA time_t – Certificate Timestamp (early discs are all 0x00, if so then 0x427 is also 0x00
15 0x4AB – 0x4B9 Reserved = 0x00
1 0x4BA Unknown = 0x01
16 Ox4BB – Ox4CA Unknown 16 bytes (unique for each ISO)
20 0x4CB – 0x4DE SHA-1 hash A
256 Ox4DF – 0x5DE Signature A
8 0x5DF – 0x5E6 FILETIME – Mastering Timestamp
4 0x5E7 – 0x5EA Reserved = 0x00 (meant to be a time_t ?)
15 0x5EB – 0x5F9 Reserved = 0x00
1 0x5FA Unknown = 0xFF (XGD1 discs from Mar-2007 onwards are 0x02 like XGD2)
16 0x5FB – 0x60A Unknown 16 bytes (only 26 known variations for XGD1, lines up with IFPI SID codes)
20 0x60B – 0x61E SHA-1 hash B
64 0x61F – 0x65E Signature B
1 Ox65F SS Version = (0x01 for Xbox, 0x02 for discs after 202)
1 0x660 Number of Security Sector Ranges = 0x17
207 0x661 – 0x72D 23 Security Sector Ranges (9 bytes each)
207 0x72E – 0x7FE Duplicated 23 Security Sector Ranges (9 bytes each)
1 0x7FF Reserved = 0x00

White = Fixed values, Green = Identical for same ISO, Red = Differs across mastering of same ISO, Highlight = Type

Structure of XGD1 Disc Manufacturing Information

Length	Offset(s)	b ₀	b_1	b ₂	b ₃	b ₄	b ₅	b_6	b ₇	
1	0x000	XGD Version = 0x01								
7	0x001 - 0x007	Reserved = 0x00								
8	0x008 - 0x00F	<mark>ASCII</mark> – XMID								
8	0x010 - 0x017	FILETIME – Timestamp								
1	0x018	XOR Key ID = (0x01 for Beta discs, 0x02 for Retail discs)								
1563	0x019 - 0x633	Reserved = 0x00								
460	0x634 - 0x7FF	Reserved = 0x00 (XGD2-style DMI trailer for XGD1 mastered March 2007 onwards)								