Structure of XGD1 Security Sector

Length	Offset(s)	b0	b1	b2	b3	b4	b5	b6	b7
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							
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 (11 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	0x4BB – 0x4CA	**Unknown 16 bytes** (unique for each ISO)							
20	0x4CB – 0x4DE	SHA-1 hash A							
256	0x4DF – 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	0x65F	**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							

Structure of XGD1 Disc Manufacturing Information

Length	Offset(s)	b0	b1	b2	b3	b4	b5	b6	b7
1	0x000	XGD Version = 0x01							
7	0x001 – 0x007	Reserved = 0x00							
8	0x008 – 0x00F	ASCII – 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)							

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