

Structure of XGD1 Security Sector

| Length | Offset(s) | b ₀ | b ₁ | b ₂ | b ₃ | b ₄ | b ₅ | b ₆ | b ₇ |
|--------|---------------|--|----------------|----------------|----------------|----------------------|------------------|----------------|----------------|
| 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 (MD5? Unique for each ISO, early discs are all 0x00) | | | | | | | |
| 4 | 0x437 – 0x43A | Reserved = 0x00 | | | | | | | |
| 16 | 0x43B – 0x44A | Unknown 16 bytes (MD5? 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 (Version?) = 0x01 | | | | | | | |
| 16 | 0x4BB – 0x4CA | Unknown 16 bytes (MD5? 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 (26 known variations, often lines up with IFPI SID codes) | | | | | | | |
| 20 | 0x60B – 0x61E | SHA-1 hash Bs | | | | | | | |
| 64 | 0x61F – 0x65E | Signature B | | | | | | | |
| 1 | 0x65F | SS Version = (0x01 for Xbox, 0x02 “Trusted” for discs after 202) | | | | | | | |
| 1 | 0x660 | Number of Security Sector Ranges = 0x17 (23 ranges) | | | | | | | |
| 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) | 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 | 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