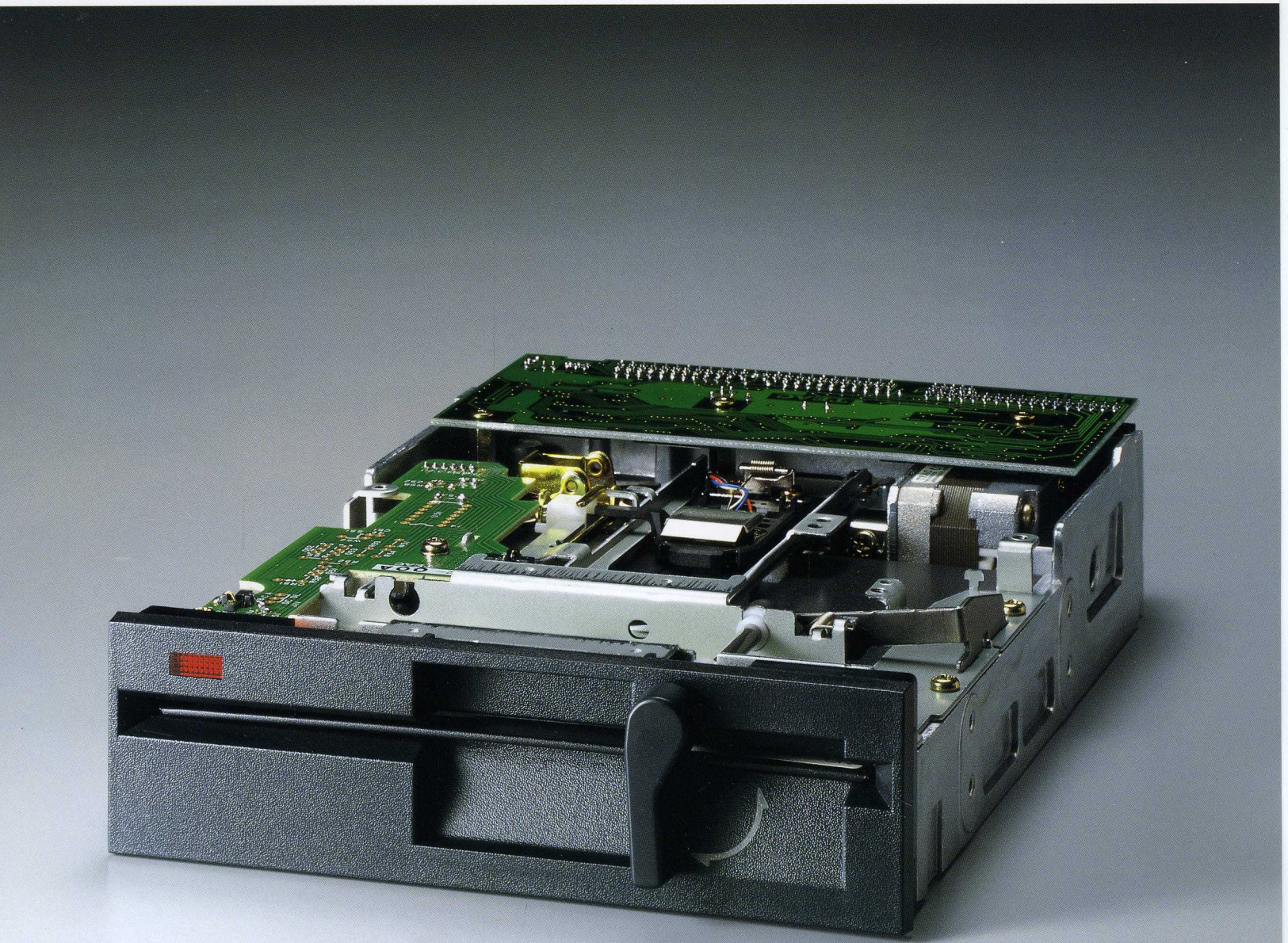
TEAC®

FD-55GS

5 1/4-inch Mini Floppy Disk Drive

- Built-in intelligent SCSI interface controller
- Simple SCSI bus connection
- Reduced loads on host
- 1.6MBytes capacity
- Half-height size, excellent space factor



5 1/4″ FDD with SCSI Interface Controller

With the intelligence to take much of the load off the host computer,
this new half-height floppy disk drive FD-55GS measures only 146W×43.8H×203D(mm),
including the built-in SCSI interface controller,
and provides 1.6MB capacity.

5¼-inch Mini Floppy Disk Drive FD-55GS

Built-In SCSI Interface Controller

Host computer loads are reduced, and system expansibility boosted, by the built-in SCSI interface, with its intelligent host interface capabilities.

Half-Height Size

The FD-55GS, including its SCSI interface controller, fits into a half-height slot, making this intelligent drive a natural choice for personal computers.

Built-In Data Buffer for High-Speed Data Transfer

The interface controller's 30KB buffer makes possible data transfer speeds to the host as high as 1MB/sec, reducing waiting time and host loads.

Low Power Consumption 1.4W Standby, 4.4W Operating

Almost all drive circuitry has been concentrated into a single LSI, reducing component count and achieving high electrical efficiency. Remember that these low standby and operating powers include the interface controller!

Full Compatibility With Other Media

Despite the FD-55GS's normal 1.6MB capacity (double sided, 96tpi), its multi-format capabilities let it handle read and write operations on five different standards, from 250KB (single-sided, 48tpi) on up.

Medium to be used	Normal density				High density
Track density	48 tpi		96 tpi		
Double sided/single sided	Single sided	Double sided	Single sided	Double sided	Double sided
Memory capacity	250 KB	500 KB	500 KB	1 MB	1.6 MB
Data transfer rate (K bit/sec)	250				500
Disk rotation speed	300 rpm				360 rpm
Data read	○	○	○	○	○
Data write	—	—	○	○	○

Low Power Heat Generation High Reliability

TEAC's combination of efficient electronic circuits in custom LSI with a high-performance drive motor achieves low power consumption and correspondingly high accuracy and reliability.

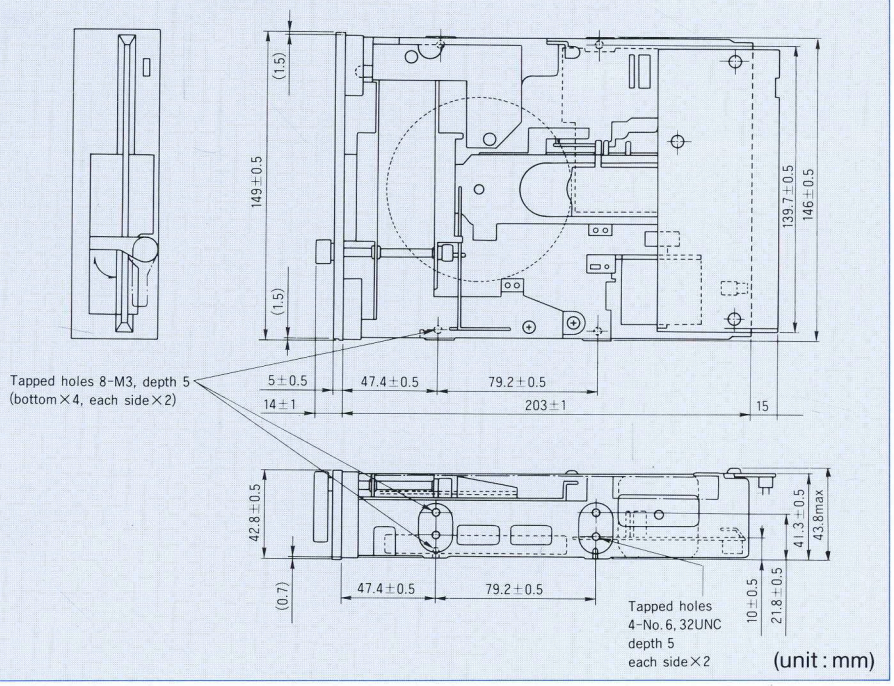
High-Precision Head Positioning

The high-precision hybrid stepping motor combined with a highly precise band actuator permits highly accurate head positioning.

Improved, Simple Mechanism

Complies with UL, CSA Standards

Dimensions



SPECIFICATIONS

SCSI Interface Controller

Interface: SCSI (ANSI X3, 131-1986)
Data Transfer Rates:
Drive side; 250Kbits/sec, 500Kbits/sec
VFO Lock Range: ±5%
Formats: 0.25—1.6MB modes; IBM format
Data Buffer Capacity: 30KBytes
Terminator: Mounted (removable)
SCSI ID: SCSI ID=0 (when shipped)
Parity Stop: ON/OFF possible (OFF when shipped)

Drive

Recording Method: FM or MFM
Media: High density (2HD), or normal density (2DD) 5¼" floppy disks
Data Transfer Rates:
500 Kbits/sec (high density)
250/300 Kbits/sec (normal density)
Tracks/Disk: 154(160)(high density)/160 (normal density)
Track Density: 96tpi
Number of Cylinders: 77 (80) (high density) /80 (normal density)

		High density	Normal density
Data Capacity: (Kbytes)	Unformatted;	1,604	1,000
	Formatted (16 sectors/track)	1,182.7 (1,228.8)	655.36

Note: Figures in brackets for 15 sectors/track. Specifications apply when the MFM recording method is used.

Rotation Speed: 300/360rpm
Average Access Time (inc. settling time):
91(94)msec(2HD)/94msec(2DD)
Track-to-track Time: 3msec
Settling Time: 15msec
Motor Starting Time: 400msec (300rpm)/500msec (360rpm)
Average Latency Time: 100msec (300rpm)/83.3msec (360rpm)
Index: 1/revolution
Error Rate: Soft read error; $1/10^9$ bits or less (two re-tries)
Hard read error; $1/10^{12}$ bits or less
Seek error; $1/10^6$ seeks or less

General

MTBF: 20,000 hours or more
MTTR: 30 minutes or less
Safety Standards: Complies with UL and CSA.
Ambient Temperature:
Operating; 4—46°C (40—115°F)
Storage; −22—60°C (−8—140°F)
Transportation; −40—65°C (−40—149°F)
Temperature Gradient:
Operating; 15°C/hr or less (non condensing)
Storage & transportation; 30°C/hr or less, (non-condensing)
Relative Humidity:
Operating; 20—80% (non condensing)
(Max. wet bulb temperature 29°C[84°F])
Storage; 10—90% (non condensing)
(Max. wet bulb temperature 40°C[104°F])
Transportation; 5—95% (non condensing)
(Max. wet bulb temperature 45°C[113°F])
Vibration:
Operating; 0.5G or less (55Hz or less)
0.25G or less (55—500Hz or less)
Transportation; 2G or less (100Hz or less)
Shock:
Operating; 5G or less (11msec or less)
Transportation; 50G or less (11msec or less)
Power Requirements;
+12VDC ±5%; Permissible ripple; 200m Vp-p or less
Standby; 0.01A typ./0.02A max.
Operating; 0.22A typ./0.54A max.
+5VDC ±5%; Permissible ripple; 100mVp-p or less
Standby; 0.25A typ./0.32A max.
Operating; 0.35A typ./0.44A max.
Power consumption: Standby; 1.4W typ.
Operating; 4.4W typ.
Dimensions (W×H×D)(approx.):
146×43.8(max.)×203(mm) (5¾×1¾(max.)×8[inch])
Weight (approx.): 1.2kg typ. (2.6lbs)

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