

U.S. GOVERNMENT PRINTING OFFICE  
Washington, DC

GENERAL TERMS, CONDITIONS, AND SPECIFICATIONS

For the Procurement of

Patent and Trademark Office (PTO)  
Compact Optical Discs - Read Only Memory (CD-ROM) and  
Digital Versatile Disc-Read Only Memory (DVD-ROM)

as requisitioned from the U.S. Government Printing Office (GPO) by the

Department of Commerce  
U.S. Patent and Trademark Office (PTO)

Single Award

**TERM OF CONTACT:** The term of this contract is for the period beginning Date of Award, and ending January 31, 2010. plus up to two (2) optional 12-month extension periods that may be added in accordance with the "OPTION TO EXTEND THE TERM OF THE CONTRACT" clause in section 1 of this contract.

**BID OPENING:** Bids shall be publicly opened at 11 a.m., prevailing Washington, DC time, on February 4, 2009.

**BID SUBMISSION:** Submit bid in pre-addressed envelope furnished with solicitation, or send to: U.S. Government Printing Office, Bid Section, 36 H Street, NW, Room C-161, Washington, DC 20401. Facsimile bids in response to this solicitation are permitted. Facsimile bids may be submitted directly to the GPO Bid Section, FAX No. (202) 512-1782. The Program Number and bid opening date must be specified with the bid. Refer to Facsimile Bids in Solicitation Provisions of GPO Contract Terms, GPO Publication 310.2 as revised June 2001.

**BIDDERS PLEASE NOTE:** Extended "**Warranty**" period clause on page 4.

Abstracts of contract prices are available at <http://winapps.access.gpo.gov/ppd/abstracts/central/default.asp>

For information of a technical nature call Brenda Tapscott (202) 512-0303 (No collect calls).

SECTION 1. – GENERAL TERMS AND CONDITIONS

**GPO CONTRACT TERMS:** Any contract which results from this Invitation for Bid will be subject to the applicable provisions, clauses, and supplemental specifications of GPO Contract Terms (GPO Pub. 310.2, effective December 1, 1987, Rev. 6-01) and GPO Contract Terms, Quality Assurance Through Attributes Program (GPO Pub. 310.1, effective May 1979, Rev. August 2002).

**PREDOMINANT PRODUCTION FUNCTION:** The predominant production function for this procurement is CD-ROM or DVD duplication/replication. **Bidder who must subcontract this operation will be declared non-responsible.**

**CD-ROM or DVD DUPLICATION/REPLICATION:** Several firms claim patent rights, which may be applicable to CD-ROM or DVD replication. For example, see <http://www.licensing.philips.com>. U.S. Philips Corporation and Sony Corporation claim to hold patents for certain technologies essential to the manufacture and replication of CD-ROMs and DVDs and assert it is impossible to manufacture or replicate a CD-ROM or DVD without infringing these patents. The patent claims cover, among other things, both the physical structure of and manner in which data is encoded on a CD-ROM or DVD. Other firms, including Discovision Associates, Irvine, CA, also claim similar patent rights.

Each bidder's attention is invited to the patent indemnification provisions of GPO Contract Terms (Pub. 310.2 (Rev. 6-01)) since the successful bidder will be responsible for compliance with all applicable patents, including any for CD-ROMs or DVDs.

By submission of a bid, bidders certify that they hold a license under all patents applicable to their duplication/replication of CD-ROMs or DVDs.

***NOTE: The production schedule listed on pages 15 and 16 under "SCHEDULE" must be maintained, whether or not the contractor chooses to use a subcontractor for any function other than the predominant function (replication of the CD-ROM and DVD-ROM discs).***

**QUALITY ASSURANCE LEVELS AND STANDARDS:** The following levels and standards shall apply to these specifications:

Product Quality Levels:

- (a) Printing (page related) Attributes – Level III.
- (b) Finishing (item related) Attributes – Level III.
- (c) Exception – Printing Attributes **do not apply** to disc title.

Inspection Levels (from ANSI/ASQC Z1.4):

- (a) Non-destructive Tests – General Inspection Level I.
- (b) Destructive Tests – Special Inspection Level S-2.

Specified Standards: The specified standards for the attributes requiring them shall be:

	<u>Attribute</u>	<u>Specified Standard</u>
P-7.	Type Quality and Uniformity	Electronic media
P-10.	Process Color Match	Approved Proofs/Electronic Media

**OPTION TO EXTEND THE TERM OF THE CONTRACT:** The Government has the option to extend the term of this contract for a period of 12 months by written notice to the contractor not later than 30 days before the contract expires. If the Government exercises this option, the extended contract shall be considered to include this clause,

except, the total duration of the contract may not exceed three (3) years as a result of, and including, any extensions added under this clause. Further extension may be negotiated under the "EXTENSION OF CONTRACT TERM" clause. See also "ECONOMIC PRICE ADJUSTMENT" for authorized pricing adjustment(s).

**EXTENSION OF CONTRACT TERM:** At the request of the Government, the term of any contract resulting from this solicitation may be extended for such period of time as may be mutually agreeable to the GPO and the contractor.

**ECONOMIC PRICE ADJUSTMENT:** The pricing under this contract shall be periodically adjusted in accordance with this clause, provided that in no event will any pricing adjustment be made that would exceed the maximum permissible under any law in effect at the time of the adjustment. Pricing adjustments under this clause are not applicable to reimbursable postage or transportation costs, or to paper, if paper prices are subject to adjustment by separate clause elsewhere in this contract. There will be no price adjustment for orders placed during the first period specified below.

For the purpose of this clause, performance under this contract will be divided into successive periods. The first period will extend from the beginning of the contract to January 31, 2010, and the second and any succeeding period(s) will extend for 12 months from the end of the last preceding period, except that the length of the final period may vary. The first day of the second and any succeeding period(s) will be the effective date of the economic price adjustment for that period.

Pricing adjustments in accordance with this clause will be based on changes in the seasonally adjusted "Consumer Price Index For All Urban Consumers - Commodities Less Food" (Index) published monthly in the CPI Detailed Report by the U.S. Department of Labor, Bureau of Labor Statistics.

The economic price adjustment is the percentage variation between Index averages as specified in this paragraph. An index called the variable mean index will be calculated by averaging the monthly Indexes from the 12-month interval ending 3 months prior to the adjustment period. This average is then compared to the average of the monthly Indexes for the 12-month interval ending October 31, 2008 called the base mean index. The percentage change (plus or minus) of the variable mean index from the base mean index will be the economic adjustment for the period being considered for adjustment.

The Government will notify the contractor by contract modification specifying the percentage increase or decrease to be applied to invoices for orders placed during the period indicated. The contractor shall apply the percentage increase or decrease against the total price of the invoice less reimbursable postage or transportation costs and separately adjusted paper prices. Payment discounts shall be applied after the invoice price is adjusted.

**ASSIGNMENT OF JACKETS, PURCHASE AND PRINT ORDERS:** A GPO jacket number will be assigned and a purchase order issued to the contractor to cover work performed. The purchase order will be supplemented by an individual "Print Order" for each job placed with the contractor. The print order, when issued, will indicate the quantity to be produced and any other information pertinent to the particular order.

**SECURITY OF DATA:** The contractor shall not release, or sell, to any person any technical or other data received from the Government under the contract; nor shall the contractor use the data for any purpose other than that for which it was provided to the contractor under the terms of the contract.

**PREAWARD SURVEY:** In order to determine the responsibility of the prime contractor or any subcontractor, the Government reserves the right to conduct an on-site preaward survey at the contractor's/subcontractor's facility or to require other evidence of technical, production, managerial, financial, and similar abilities to perform, prior to the award of a contract.

**WARRANTY:** The provisions of article 15, "Warranty", of Contract Clauses in GPO Contract Terms (Pub. 310.2, effective December 1, 1987, Rev. June 2001) is amended for the solicitation to the effect that the warranty period is **EXTENDED** from 120 days to one calendar year from the date the check is tendered as final payment, for all replications which prove to be defective in material, manufacture, or labeling. All other provisions remain the same.

**ORDERING:** Items to be furnished under the contract shall be ordered by the issuance of print orders by the Government. Orders may be issued under the contract from Date of Award through January 31, 2010, plus for such additional period(s) as the contract is extended. All print orders issued hereunder are subject to the terms and conditions of the contract. The contract shall control in the event of conflict with any print order. A print order shall be “issued” for purposes of the contract, when it is either deposited in the U.S. Postal Service mail or otherwise furnished to the contractor in conformance with the schedule.

**REPORTING REQUIREMENTS:** The contractor shall be required to maintain, and submit to the agency upon request, a report showing the number of subscribers, number of issues and the number of discs shipped for the following intervals: every issue, every month, and every year. The exact format of the report will be discussed with contractor after award.

**REQUIREMENTS:** This is a requirements contract for the items and for the period specified herein. Shipment/delivery of items or performance of work shall be made only as authorized by orders issued in accordance with the clause entitled “Ordering”. The quantities of items specified herein are estimates only, and are not purchased hereby. Except as may be otherwise provided in this contract, if the Government’s requirements for the items set forth herein do not result in orders in the amounts or quantities described as “estimated”, it shall not constitute the basis for an equitable price adjustment under this contract.

Except as otherwise provided in this contract, the Government shall order from the contractor all the items set forth which are required to be purchased by the Government activity identified on page 1.

The Government shall not be required to purchase from the contractor, requirements in excess of the limit on total orders under this contract, if any.

Orders issued during the effective period of this contract and not completed within that time shall be completed by the contractor within the time specified in the order, and the rights and obligations of the contractor and the Government respecting those orders shall be governed by the terms of this contract to the same extent as if completed during the effective period of this contract.

If shipment/delivery of any quantity of an item covered by the contract is required by reason of urgency prior to the earliest date that shipment/delivery may be specified under this contract, and if the contractor will not accept an order providing for the accelerated shipment/delivery, the Government may procure this requirement from another source.

The Government may issue orders which provide for shipment/delivery to or performance at multiple destinations.

Subject to any limitations elsewhere in this contract, the contractor shall furnish to the Government all items set forth herein which are called for by print orders issued in accordance with the “Ordering” clause of this contract.

GPO Publication 310.2, GPO Contract Terms, Contract Clause 5. Disputes, is hereby replaced with the June 2008 clause found at [www.gpo.gov/printforms/pdf/contractdisputes.pdf](http://www.gpo.gov/printforms/pdf/contractdisputes.pdf). This June 2008 clause also cancels and supersedes any other disputes language currently included in existing contractual actions.

## SECTION 2. – SPECIFICATIONS

**SCOPE:** These specifications cover the replication of Compact Discs - Read Only Memory (CD-ROM) and Digital Versatile Discs-Read Only Memory (DVD-ROM) requiring the production of masters from Government furnished premastered magnetic tapes, CD-R's, and DVD-R's, replication of discs, printing of title on discs, printing of back inlay cards, insertion, packing and distribution.

**TITLE:** U.S. Patent and Trademark Office (PTO) Compact Discs - Read Only Memory (CD-ROM) and Digital Versatile Discs - Read Only Memory (DVD-ROM).

**All DVD-ROM's manufactured under these specifications will be read on Pioneer DVD-302 players.**

**FREQUENCY OF ORDERS:** Approximately 60 orders for CD-ROM's and approximately 150 orders for DVD-ROM's will be placed during the term of this contract. No more than 2 orders will be placed in a single day.

**QUANTITY:** Approximately 300 to 1,500 replications per order. Rare orders may require up to 40,000 replications. (Some orders will require multiple discs).

**TRIM SIZES:**

Back inlay card: 5-15/16 x 4-5/8"

**GOVERNMENT TO FURNISH:**

Premastered data on 8 mm (helical scanned) magnetic tapes, CD-R or DVD-R for CD-ROM.

CD-Recordable (CD-R) in the Standard format.

DLT (Digital Linear Tape), or DVD-R for DVD-ROM.

CorelDraw version 8 files on 100 MB Iomega Zip disk(s), or CD-R for the graphics for disc label and back inlay cards, plus visuals.

GPO Form 952 (Desktop Publishing-Disk Information).

Printed customer courtesy reply cards.

Miscellaneous preprinted products to be inserted in with each set of discs.

One reproduction proof, Form 905 (Rev6/03) with labeling and marking specifications.

A supply of blue labels and selection certificates for shipping Departmental Random copies.

**CONTRACTOR TO FURNISH:** All materials and operations, other than those listed under "Government to Furnish," necessary to produce the product(s) in accordance with these specifications.

Contractor will be responsible adding disc title volume ID and the date for each issue on the disc title.

**ELECTRONIC PREPRESS:**

Prior to image processing, the contractor shall perform a basic check (preflight) of the furnished media and publishing files to assure correct output of the required reproduction image. Any errors, media damage, or data corruption that might interfere with proper file image processing must be reported to Ed Vocke, Ed.Vocke@uspto.gov: (571) 272-5480.

The contractor shall create or alter any necessary trapping, set proper screen angles and screen frequency, and define file output selection for the imaging device being utilized. Furnished files must be imaged as necessary to meet the assigned quality level.

When required by the Government, the contractor shall make minor revisions to the electronic files. It is anticipated that the Government will make all major revisions.

Prior to making the revisions, the contractor shall copy the furnished files and make all changes to the copy.

Upon completion of each order, the contractor must furnish final production native application files (digital deliverables) with the furnished material. The digital deliverables must be an exact representation of the final printed product and shall be returned on the same type of storage media as was originally furnished. The Government will not accept, as digital deliverables, Postscript files, Adobe Acrobat, Portable Document Format (PDF) files, or any proprietary file formats other than those supplied, unless specified by the Government.

**STOCK/PAPER:** The specifications of all paper furnished must be in accordance with those listed herein or listed for the corresponding JCP Code numbers in the "Government Paper Specification Standards No. 12" dated February 2008.

**Back inlay card:** White Litho (Gloss) Coated Book, basis weight 70 lbs. per 500 sheets, 25 x 38", equal to JCP Code A180.

**PRINTING:**

**CD-ROM and DVD-ROM:** Title prints on face of disc in four-color process. All printing on the disc shall comply with the requirements set forth in International Standards IEC 60908 and ISO 10149 for CD-ROM, and ISO/IEC DIS 16448 for DVD. Inks used for the disc title must not damage the lacquer layer.

**Back inlay card (orders requiring the packaging of discs in jewel boxes):** Prints face only in four-color process and one additional Pantone ink color. The four-color process printing on the back inlay card will be the same for all discs, but the spine label will be different for each master.

Contractor will also be required to print the title and stock number in black ink on the individual mailing containers and the Jiffylite mailers for Superintendent of Documents (GPO) only. At contractor's option, title and stock number may be printed on labels, and labels affixed to the individual mailing containers/Jiffylite mailers. Labels or printing should be placed on the individual mailing containers/Jiffylite mailers in such a manner as to not be covered by any mailing label that may be affixed at a later time.

**PROOF OF PRINTED TITLE:**

One set of fax or e-mail page proofs of the printed title .

Cromalin proofs or similar (laminated or electrophotography) are not acceptable as a proof of the disc title on this contract.

The contractor must not print titles on replicated discs prior to a receipt of an "OK to print."

**DVD-ROM PRE-PRODUCTION CHECK DISCS:** On occasional orders, the contractor will be required to produce a pre-production check disc for Government inspection prior to replication of the ordered quantity. After notification to pickup the print order and furnished material, the pre-production check disc must be delivered to the address listed under SCHEDULE as soon as the contractor deems necessary in order to comply with the delivery schedule. The government will contract the contractor by telephone or by facsimile machine with approval or disapproval within 1 workday after receipt of the check disc. If the check disc is disapproved due to faulty production by the contractor, the contractor must then provide a corrected check disc for approval, and one extra day will be allowed in the production schedule. No additional charges will be allowed for this corrected pre-production check disc.

If the pre-production check disc is faulty because of defective source data or DLT (digital linear tape) media furnished by the Government, instructions will be provided to the contractor for return of the defective data or media and new corrected data or media will be furnished to the contractor. The contractor will be allowed to charge for the pre-production check disc produced from the defective data or media. The schedule will start over upon the contractor's receipt of the corrected tape.

All pre-production check discs must be placed in DVD-safe jewel boxes. Although the contractor will not be required to print a color product label on check discs, the following information must be written legibly on the face of the disc: product name, year, volume, and issue. The shipping package containing this preproduction check disc must be identified by the GPO jacket number, program number, print order number, and title.

Contractor is cautioned not to proceed with the replications until Government approval of the pre-production check disc is received.

**MARGINS:** Margins will be as indicated on the print order or furnished copy.

**BINDING:** Back inlay card: Trim four sides. Score or perforate (slit or slot without ink) vertically along the 4-5/8" dimension in two places, 1/4" from the left and right edges. Inlay cards must be folded printed side out and inserted into the back of the jewel box, with title page facing outwards, so that it can be read without opening the jewel box.

**INSERTING:** Most orders will require the contractor to insert a furnished printed customer courtesy reply card into the individual mailing container with the jewel boxes, or in the Jiffylite-mailer with the tyvek CD sleeve. The reply card is not to be inserted inside of the jewel box, or inside the tyvek sleeve.

In addition to the customer courtesy reply card, an occasional order may also require the contractor to insert a furnished preprinted product into each individual mailing container with the jewel boxes or into the Jiffylite mailers. The size of this product will be of such size as to not require any folding to fit the size of the individual mailing containers / jiffylite mailer.

**MAG TAPES:** Each premastered tape for CD-ROM contains an ISO 9660 image. Each premastered tape for DVD-ROM contains a UDF/Bridge image.

**WARNING:** All magnetic tapes provided by the Government, or any duplicates made by the contractor or his representatives, must be kept accountable and under reasonable security to prevent their release to any unauthorized persons. Tapes must not be duplicated in whole or part for any other purpose than to create material to be used in the performance of this contract. All duplicate tapes shall be degaussed and any printouts shall be destroyed by the contractor. Tapes provided to the contractor must be returned to the agency at the address listed under "SCHEDULE".

**CD-ROM:**

**DATA FORMAT VERIFICATION:** Upon receipt of the input media, the contractor shall review the files for useability and completeness. The contractor shall verify compliance of each image with the requirements of IS 9660. The contractor shall immediately notify the Government of any problems with the furnished data files, including files which are damaged, unreadable, oversized, or not in compliance with IS 9660. Any delay by the contractor in notifying the Government of defective furnished material will not release the contractor from meeting the delivery and distribution schedule.

**DATA CAPACITY:** The contractor shall be capable of producing CD-ROMs containing up to 80 minutes of user data, (ie, 805,920,000 bytes of data in mode 2).

**STAMPER MARKS:** The contractor shall image the jacket and print order number on the inner buffer zone unless the contractor is permitted to image other identification marks necessary for production in the IBZ.

**CD-ROM MANUFACTURING SPECIFICATIONS:**

Discs produced under this contract shall be 120 mm and 80 mm CD-ROMs as governed by the International Standards IEC 908 and Amendment, IS 9660, and IS 10149. All sectors containing user data shall have their Sector Mode Byte set to (01)H, and the sector content and layout shall be structured accordingly. Furthermore, discs MUST comply with the following requirements:

**Metalizing:** The reflective layer shall be completely sealed with lacquer on both the inner and outer edges of the disc.

**Local Defects:** The maximum allowable diameter of black spots, with or without increased birefringence, is 100 micrometers.

**Modulation Amplitude:** The relationship between I3 and Itop shall be:  $0.35 \leq I3/I_{top} \leq 0.7$ . The relationship between I11 and Itop shall be:  $I11/I_{top} \geq 0.65$ .

**Signal Asymmetry:** The absolute value of the asymmetry shall be lower than or equal to 15%.

**Block Error Rate (BLER):** Block Error Rate (BLER) may not exceed 80 when averaged over any one second interval; BLER may not exceed 25 when averaged over the entire User Data Area.

**E22 Errors:** E22 errors arising from the mastering and electroforming stages of manufacturing, i.e. present on the stamper, shall not be permitted. An E22 error shall be considered to be on the stamper if the discs produced from the same stamper contain E22 errors in the same time location (minute:second). Discs may contain E22 errors arising from the replication stage of manufacturing, but the number shall not exceed 1.0 percent of the total quantity, and no disc shall contain more than 3 E22 errors.

**Storage Tests:** Annex F of International Standard IS 10149 shall be treated as normative to the standard. Discs subjected to testing in accordance with Annex F shall remain in compliance with these specifications.

**Jitter, Effect Length Deviation:** In accordance with Compact Disc System specifications for jitter and effect length deviation, the following requirements shall apply:

1. For each runlength of land and pit (3T, ..., 11T), jitter shall be less than 35ns.
2. Effect Length Deviation shall not exceed the following:

<u>Pit/Land Length</u>	<u>Maximum Deviation (+/-)</u>	<u>Nominal Length Pit</u>	<u>Nominal Length Land</u>
3T	40.0ns	660ns	675ns
4T	42.5ns	910ns	925ns
5T	45.0ns	1165ns	1165ns
6T	47.5ns	1400ns	1400ns
7T	50.0ns	1635ns	1635ns
8T	52.5ns	1875ns	1875ns
9T	55.0ns	2110ns	2110ns
10T	57.5ns	2340ns	2335ns
11T	60.0ns	2570ns	2560ns

All other Compact Disc System mandated requirements for jitter and effect length deviation shall apply.

#### CD-ROM QUALITY CONTROL:

Each delivered replicate must meet or exceed the requirements of these specifications. In addition to the contractor's existing quality control procedures, the following steps must be performed:



Data Integrity: For each stamper used, the contractor shall:

1. Verify the integrity of all user data against the original government-furnished media;
2. Verify the integrity of EDC/ECC (error detection and error correction coding) for each sector of the User Data Area;
3. Verify the integrity and consistency of the Table of Contents and the subcode data; and
4. Verify the absence of E22 errors.

Verification for 1, 2, and 3 above may be performed on a CD replicate. Replicates not meeting these specifications must be reproduced and redelivered at the contractor's expense and the contractor shall be considered late.

#### CD-ROM PRODUCT TESTING:

The contractor will be required to test CD-ROM replicates for compliance to the specifications of this contract. The contractor is responsible for ensuring comparability of his test results with those of the Philips CD and Laserdisc System Evaluation Laboratory. The following test results shall be reported.

1. Exact diametric locations of the following parts of the spiral data track.
  - a. Starting diameter of the lead in zone.
  - b. Starting diameter of the user data zone.
  - c. Starting diameter of the lead out zone.
2. Eccentricity.
3. Average track pitch.
4. Average scanning velocity.
5. Push/pull.
6. Crosstalk.
7. High frequency and tracking signal properties. These must be read continuously along the spiral track. Minimum, maximum, and average values must be reported. Minima and maxima must be identified by A-Time.
  - a. I<sub>top</sub> or reflectivity.
  - b. Symmetry of I<sub>11</sub> relative to I<sub>d</sub>.
  - c. I<sub>3</sub> normalized by reflectivity.
  - d. I<sub>11</sub> normalized by reflectivity.
  - e. Radial noise.
8. Digital errors. The following errors and error rates must be measured continuously along the spiral track. Where applicable, minimum, maximum, and average values must be reported. Minima and maxima must be identified by A-Time.
  - a. One second moving averages for block error rate.
  - b. One second counts of E22 errors.
  - c. Burst error length.
  - d. Errors in the table of contents.

- e. Errors in the subcode data.
- 9. Total playing time.
- 10. Birefringence.
- 11. Jitter and Effect Length Deviation.

The following test results may be reported, at the option of the contractor:

- 1. Maximum vertical deviation from the clamping plane.
- 2. Maximum angular light beam deflection from the clamping plane.

DVD-ROM:

**DATA VERIFICATION:** Upon receipt of the input media, the contractor shall review the files for usability and completeness. The contractor shall verify compliance of each disc image with the requirements of the DVD Standard Specification version 1.0. The contractor shall immediately notify the Government of any problems with the furnished data files, including files which are damaged, unreadable, oversized, or not in compliance with the DVD Standard Specification version 1.0.

**DATA CAPACITY:** The contractor shall be capable of producing DVD-ROMs containing 4.7 (DVD-5) gigabytes (4,700,000,000 bytes) of data (DVD-5, single side, single layer) and 8.5 gigabytes (8,540,000,000 bytes) of data (DVD-9, single side, double layer).

**STAMPER MARKS:** The contractor shall image the jacket and print order number on the inner buffer zone unless the contractor is permitted to image other identification marks necessary for production in the inner buffer zone.

**DVD-ROM FILE SYSTEM:** All DVD-ROM discs produced under this contract shall comply with the *OSTA Universal Disc Format Specification: 1996 (Appendix 6.9) "OSTA UDF Compliant Domain" of ISO/IEC 13346:1995 Volume and file structure of write-once and rewritable media using non-sequential recording for information interchange*. Also known as the UDF Bridge (UDF/ISO 9660) file structure.

DVD-ROM MANUFACTURING SPECIFICATIONS:

All DVD-ROM discs produced under this contract shall comply with the applicable sections of the DVD Standard Specification version 1.0. All DVD-ROM discs produced under this contract shall comply with the specifications cited in the following tables.

Digital Errors (Reed Solomon Product Code):

<u>Parameter</u>	<u>Acceptable Value(s)</u>
PI 8 ECC Sum	< 280
PI Fails	<i>Not specified</i>
PO Fails	= 0 (zero)
Percent of PI rows with Errors	<i>Not specified</i>

*Comments: The PI 8 ECC Sum error is the total error across 8 ECC blocks. PI 8 Sum under 40 is preferred.*

HF/Tracking Real-time Measurements (made before signal "equalization"):

<u>Parameter</u>	<u>Acceptable Value(s)</u>
I3/I14	Single layer: > 0.15 Dual layer: > 0.20

I14/I14H	> 0.6
Tangential Push Pull	< 0.9
Asymmetry	In the range -0.05 to 0.15

HF/Tracking Station Measurements:

<u>Parameter</u>	<u>Acceptable Value(s)</u>
DPD Track Crossing	> 0.10
DPD Tracking Amplitude	> 0.5
DPD Tracking Asymmetry	< 0.2
Reflectivity	Single layer: in the range 45% to 85% Dual layer: in the range 18% to 30%

*Comments: HF signals must be strong enough to avoid decoding failures. The tracking signal must be strong enough to support the variable bit functions.*

Physical Measurements:

<u>Parameter</u>	<u>Acceptable Value(s)</u>
Track Pitch	0.74 ± 0.01 µm/track
Pit Length	Single layer: in the range 0.394 to 1.873 µm Double layer: in the range 0.434 to 2.058 µm
Local Defects	Air bubbles: 100 µm maximum Black spots: 200 µm maximum
Scanning Velocity	Single layer: 3.49 ± 0.03 m/sec Dual layer: 3.84 ± 0.03 m/sec
Jitter (Data to Clock)	< 8.0%, independent of tilt effects
Angular Deviation (Tilt)	Radial tilt: < ± 0.80 degrees Tangential tilt: < ± 0.30 degrees
Birefringence	< 100 nm

*Comment: The combination of the effects of jitter and tilt will be considered in the evaluation of a disc.*

LEAD-IN AREA CONTENTS: Contractor shall set the values of the lead-in area as follows:

<u>Parameter</u>	<u>Value(s)</u>
Book Type	DVD-ROM
Book Version	[determined by contractor]
Disc Size	120 mm
Number of Layers	1 or 2, as specified in Print Order
Dual Layer Track Path	Parallel Track Path (PTP)
Layer Type	Read-only
Linear Density	Single Layer: 0.2667 µm/data bit Dual Layer: 0.293 µm/data bit
Track Density	0.74 µm/track
Starting Sector Number	030000h
Ending Sector Number (Main)	[determined by contractor]
Ending Sector Number (layer 0)	[determined by contractor]
Burst Cutting Area (BCA) Flag	Exists (on) [BCA encodes disc volume ID as specified by USPTO]
Copy Protection System	None [copy protection off]
Region Management Flags	None [unrestricted access in all regions]
Encryption Data	None [no encryption]
Manufacturing Data	[As supplied by Contractor]
Content Provider Information	[Insert contents of provided file CPI.TXT]

**DVD-ROM PERFORMANCE:** The DVD-ROMs shall read on the Pioneer DVD-302 reader specified and a DVD-ROM will be considered a reject when it cannot be correctly read on this player. The contractor will be required to immediately replace, at no cost to the Government, any DVD-ROM discs that fail to function properly due to the contractor's failure to properly manufacture discs.

**DVD-ROM QUALITY CONTROL:** Each delivered replicate must meet or exceed the requirements of these specifications. In addition to the contractor's existing quality control procedures, the following steps must be performed:

Data integrity: For each stamper used, the contractor shall:

1. Verify the integrity of all user data against the original government-furnished media;
2. Verify the integrity of error detection and error correction coding for each sector of the user data area;
3. Verify the UDF/ISO 9660 directory structure.

Verification may be performed on a replicate or pre-production check disc. Replicates not meeting these specifications must be reproduced and redelivered at the contractor's expense and the contractor shall be considered late.

**DVD-ROM PRODUCT TESTING:** The contractor is required to test DVD-ROM replicates for compliance to the specifications of this contract. The contractor is responsible for ensuring that all DVD-ROM discs produced will function correctly on the DVD-ROM drive provided (at no cost to the contractor) by the US Patent & Trademark Office, Optical Disc Publishing Program.

The contractor is required to test DVD-ROM replicates for compliance to the specifications of this contract. The contractor is responsible for ensuring comparability of his test results with those of the CDAssociates DVD100MG. The following test results shall be reported.

1. Average track pitch.
2. Average scanning velocity.
3. Tangential push/pull.
4. Track crossing signal magnitude.
5. High frequency and tracking signal properties. These must be read continuously along the spiral track. Minimum, maximum, and average values must be reported. Minima and maxima must be identified by A-Time.
  - a. Itop or reflectivity.
  - b. Signal asymmetry.
  - c. I3 normalized to I14.
  - d. I14 normalized to I14H.
6. One-second moving values for PI 8 ECC Sum and PI fails, measured continuously along the spiral track; minimum, maximum, and average values must be reported.
7. Total playing time and total sectors tested.
8. Maximum disc birefringence.

9. Data to clock jitter.

PACKAGING: The method of packaging will be indicated on the print order. Packaging methods will be ordered as follows:

Package in single-disc jewel box cases (hinged, hard-clear plastic compartments with special holding features specific to CD-ROM or DVD-ROM, as required) or Tyvek sleeves. Discs must be placed and held inside the jewel box so as not to be damaged while in transit. The disc-holding mechanism in the jewel box must support the disc without damage in long-term (20-50 years) storage. Video-cassette sized containers designed for DVD are NOT acceptable on this contract. Tyvek sleeves with window are to be standard 5 x 5" spun bonded polyolefin with flap and opening at top for insertion of disc.

When ordered:

PM1a: Pack one jewel box containing the disc(s) along with a furnished customer-reply card (reply card must not be in the jewel box) into an individual, corrugated-cardboard mailing container. The individual mailing container must be sufficiently durable and must be packed to prevent damage to the contents during transit and must conform to all U.S. Postal Service regulations for domestic and foreign mailing. The individual mailing containers containing the jewel box must then be constructed in shipping containers of no more than approximately 50 discs per container, in a manner sufficient to prevent damage to the discs or the individual mailing containers.

PM1b: Pack jewel boxes with discs into a shipping container sufficiently durable to prevent damage to the contents during transit. Pack no more jewel boxes per container than specified in the print order (maximum 100) and one customer-reply card per container. The discs must be packed in the shipping containers in a manner sufficient to prevent damage to the discs or the jewel boxes during shipment.

PM2: Pack discs in Tyvek sleeves along with a furnished customer-reply card (the card must not be in the sleeve), into a Self-Seal Jiffylite Mailer #0. The **unsealed** Jiffylite mailer must then be packed in shipping containers of no more than approximately 250 discs per container, in a manner sufficient to prevent damage to the discs or the Jiffylite mailer during shipment.

PM3: Package in the Jiffylite mailer. The discs must then be packed in shipping containers of no more than approximately 250 discs per container, in a manner sufficient to prevent damage to the discs or the Jiffylite mailer. **No customer-reply cards are required.**

*NOTE: It is the responsibility of the contractor to assure that a sufficient stock of customer reply cards is maintained.*

Individual mailing containers shall have a minimum bursting strength of 275 pounds per square inch or a minimum edge crush test (ECT) of 44 pounds per inch width.

PACKING:

Bulk delivery: Pack suitable shipping containers. Each print order must be packed separately.

Shipping containers must be made in accordance with ASTM D5118 and any amendments thereto and shall have a minimum bursting strength of 275 pounds per square inch or a minimum edge crush test (ECT) of 44 pounds per inch width.

All shipments which fill less than a shipping container must be packaged with materials of sufficient strength and durability and in such a manner which will guarantee that the product will not be damaged and the package will not open nor split when processed through the U.S. Postal Service or a small package carrier delivery system.

LABELING AND MARKING:

Bulk shipment: Reproduce shipping container label from furnished repro, fill in appropriate blanks and attach to shipping containers.

DEPARTMENTAL RANDOM COPIES (BLUE LABEL): All orders must be divided into equal sublots in accordance with the chart below. A random copy must be selected from each subplot. Do not choose copies from the same general area in each subplot. The contractor will be required to execute a statement furnished by GPO certifying that copies were selected as directed. The random copies constitute a part of the total quantity ordered, and no additional charge will be allowed.

<u>Sublots</u>	<u>Books</u>		<u>Forms</u>	
	<u>Quantity Ordered</u>	<u>Number of Sublots</u>	<u>Quantity Ordered</u>	<u>Number of</u>
	500 - 3,200	50	12,000 - 35,000	125
	3,201 - 10,000	80	35,001 and over	200
	10,001 - 35,000	125		
	35,001 and over	200		

These randomly selected copies must be packed separately and identified by a special Government-furnished blue label, affixed to each affected container. The container and its contents shall be recorded separately on all shipping documents and sent to the address listed under "Schedule".

A copy of the PRINT ORDER/SPECIFICATION and a signed Government-furnished certificate of selection, must be included.

QUALITY ASSURANCE INSPECTION SAMPLES: When indicated on the print order, the contractor will be required to submit quality assurance inspection samples to test for compliance against the specifications. This quality assurance inspection sample package must include three CD-ROM/DVD-ROM discs for each stamper used. The first disc shall be randomly selected from the first five minutes of the production run, and the second disc shall be randomly selected from the last five minutes of the production run. The third disc shall be randomly selected from the remainder of the production lot. For CD-ROM only, at least one disc shall be tested as described under PRODUCT TESTING, and the test results from this disc must be included in the package. Replicates will be paid for at the running rate offered in the contractor's bid and their cost will not be considered for award.

Business Reply Mail labels (green labels) will be furnished for mailing the quality assurance inspection samples. The package containing the samples must be of sufficient quality to prevent damage during transit, must be identified by the GPO jacket number, program number, print order number, and title, and must contain a copy of the print order. The samples are to be mailed at the same time as the first scheduled shipment.

An U.S. Postal Service approved Certificate of Mailing, identified by Program, Jacket and Print Order numbers, must be furnished with billing as evidence of mailing.

A copy of the Government-furnished certificate must accompany the invoice sent to GPO, Financial Management Service, for payment. Failure to furnish the certificate may result in delay in processing the invoice.

**DISTRIBUTION:**

Deliver f.o.b. destination to approximately three to five addresses within the commercial zone of Washington, DC area. When specified, inside delivery to room number is required.

Complete addresses and quantities will be furnished with the print order.

Within 5 workdays after completion of each order, all furnished material and all tapes must be returned to the address listed under "SCHEDULE".

All expenses incidental to returning materials must be borne by the contractor.

SCHEDULE: Adherence to this schedule must be maintained. Contractor must not start production of any job prior to receipt of the individual print order (GPO Form 2511).

No definite schedule for pickup of material can be predetermined.

Furnished material must be picked up from and delivered to:

Patent and Trademark Office  
OCIO – CISG/ Electronic Information Products Div.  
600 Dulaney Street  
Madison West, 4<sup>th</sup> Floor, Room 4B07  
Alexandria, VA 22314  
Attn: Veronica Jackson, (571)272-5648

The following schedule begins the workday after notification of the availability of print order and furnished material; the workday after notification will be the first workday of the schedule.

- Deliver within 5 workdays for CD-ROM.
- Deliver within 5 workdays for single layer DVD-ROM.
- Deliver within 7 workdays for dual layer DVD-ROM
- Deliver within 10 workdays for dual layer DVD-ROM if check disk is required.

The Pre-Production check disc should be submitted by the contractor as soon as deemed necessary in order to comply with the delivery schedule. "Ok to produce" will be given to the contractor within one workday from receipt by the Government.

Contractor must make complete production and distribution of Superintendent of Documents (GPO) discs within 12 workdays.

The ship/deliver date indicated on the print order is the date products ordered for delivery f.o.b. destination must be delivered to the destination(s) specified.

Unscheduled material such as shipping documents, receipts or instructions, delivery lists, labels, etc., will be furnished with each order or shortly thereafter. In the event such information is not received in due time, the contractor will not be relieved of any responsibility in meeting the shipping schedule because of failure to request such information.

Upon completion of each order, the contractor is to notify the U.S. Government Printing Office of the date of shipment (or delivery, if applicable). Call (202) 512-0516 or (202) 512-0517: callers outside the Washington, DC area may call toll free 1-800-424-9470 or 1-800-424-9471.

SECTION 3. – DETERMINATION OF AWARD

The Government will determine the lowest bid by applying the prices offered in the “Schedule of Prices” to the following units of production which are the estimated requirements to produce one year’s production under this contract. These units do not constitute, nor are they to be construed as, a guarantee of the volume of work which may be ordered under this contract for a like period of time.

The following item designations correspond to those listed in the “Schedule of Prices”.

I.	1.(a)	56
	(b)	432
	2.(a)	48
	(b)	183
	(c)	1
	(d)	112
	(e)	419
	(f)	1

II.	(1)	(2)
	116	400

III.	(a)	400
	(b)	613
	(c)	419

IV.	7
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SECTION 4. – SCHEDULE OF PRICES

Bids offered are f.o.b. destination to approximately three to five addresses within the commercial zone of Washington, DC.

Prices must include the cost of all required materials and operations for each item listed in accordance with these specifications.

Bidder must make an entry in each of the spaces provided. Bids submitted with any obliteration, revision, or alteration of the order and manner of submitting bids, may be declared nonresponsive.

An entry of NC (No Charge) shall be entered if bidder intends to furnish individual items at no charge to the Government.

Bids submitted with NB (No Bid) or blank spaces for an item may be declared nonresponsive.

The Contracting Officer reserves the right to reject any offer that contains prices for individual items of production (whether or not such items are included in the Determination of Award) that are inconsistent or unrealistic in regard to other prices in the same offer or to GPO prices for the same operation if such action would be in the best interest of the Government.

All vouchers submitted to the GPO shall be based on the most economical method of production.

Fractional parts of 100 will be prorated at the per 100 rate.

I. CD-ROMs and DVD-ROMs: Prices offered shall be all inclusive for the production and delivery of discs in accordance with the term of these specifications; and must include the cost of all required materials and operations, including the printing of labels on discs and the **proofing of the title as specified on page 6**. Only one mastering charge will be allowed per disc regardless of the number of replications produced.

1. **CD-ROM:  
120mm**

- (a) Mastering ..... per master .....\$ \_\_\_\_\_
- (b) Replication of CD-ROM discs ..... per 100 discs.....\$ \_\_\_\_\_

2. **DVD-ROM:  
Single side, single layer:**

- (a) Mastering ..... per master .....\$ \_\_\_\_\_
- (b) Replication of DVD-ROM discs ..... per 100 discs.....\$ \_\_\_\_\_
- (c) Pre-production disc ..... per disc .....\$ \_\_\_\_\_

Single side, double layer:

- (d) Mastering ..... per master .....\$ \_\_\_\_\_
- (e) Replication of DVD-ROM discs ..... per 100 discs.....\$ \_\_\_\_\_
- (f) Pre-production disc ..... per disc .....\$ \_\_\_\_\_

\_\_\_\_\_  
Initials

II. **PRINTING AND BINDING:** Prices offered shall be all inclusive, as applicable, and must include the cost of all required materials and operations necessary (including binding, folding, and inserting into jewel boxes) in accordance with these specifications.

	<u>Makeready and/or Setup</u> (1)	<u>Running Per 100 copies</u> (2)
Back inlay card printing in four-color process and one additional ink color..... per card.....	\$_____	\$_____

III. **PACKAGING:** Prices offered shall be all inclusive for the packaging of CD-ROMs/DVD-ROMs in accordance with the terms of these specifications; and must include the cost of all required materials and operations, including shipping containers and the inserting of customer reply cards, when required. The cost of insertion of the CD/DVD into the jewel box, vinyl sleeve or printed self-mailer shall be inclusive in the price of items a, b, c, and d below.

(a) Single-disc jewel box ..... per 100 jewel boxes.....\$\_\_\_\_\_

The price offered for item (a) above must include insertion of the back inlay cards in the jewel boxes.

(b) Tyvek sleeve inserted into Jiffylite Mailer #0..... per 100 sleeves/mailers .....\$\_\_\_\_\_

(c) Individual mailing containers..... per 100 containers .....\$\_\_\_\_\_

The price offered for item (c) above must include the inserting of the jewel box into the container.

IV. **ADDITIONAL OPERATIONS:** Prices offered shall be all inclusive, as applicable, and must include the cost of all required materials and operations necessary in accordance with these specifications.

Inserting additional furnished printed material..... per 100 pieces.....\$\_\_\_\_\_

\_\_\_\_\_  
(Initials)

INSTRUCTIONS FOR BID SUBMISSION: Fill out "Section 4.- Schedule of Prices", initialing or signing each page in the space(s) provided. Submit two copies (original and one exact duplicate) of the "Schedule of Prices" with two copies of GPO Form 910 "BID" form. Do not enter bid prices on GPO Form 910; prices entered in the "Schedule of Prices" will prevail..

Bidder \_\_\_\_\_

\_\_\_\_\_  
(City - State)

By \_\_\_\_\_

(Signature and title of person authorized to sign this bid)

\_\_\_\_\_  
(Person to be contacted)

\_\_\_\_\_  
(Telephone Number)

