



# DTA-RPS12-C

## DIGITAL TO ANALOG DTA SOLUTION

Solution for Providing Analog Video Output in All-Digital Cable TV Networks

### INSTRUCTION MANUAL & SPECIFICATIONS



**INCLUDED WITH THIS PRODUCT:**



1 x DTA-RPS12-C Chassis



1 x DTA-RPS12-C Front Panel



12 x DTA Power Jumper Cables



6 x Front Panel Mounting Screws



2 x Front Panel End Covers



2 x Silver Nuts (for mounting a 12 Port Splitter (SDS-12) to rear of included chassis)\*



1 x Power Cord



1 x Instruction Manual / Specifications

Completed system also requires the use of: 12 x DTA receivers (Drake recommends the use of Cisco brand DTA models with the DTA-RPS12-C Chassis for proper fit)  
 12 x Drake MPM860AG Channel 3/4 Agile Mini Processors  
 1 x Drake RMM12 Chassis with 1 x Drake PSM121 Power Supply  
 1 x Drake PC1201 Combiner  
 1 x 12 Port Splitter

\*DTA's, MPM860AG's, RMM12, PSM121, PC1201, and 12 Port Splitter (SDS-12) sold separately.

**DRAKE** is a registered trademark of R.L. Drake Holdings, LLC.

© Copyright 2013 R. L. Drake Holdings, LLC P/N: 651234600A Printed in U.S.A.

Rev: 20131227  
 V001  
 DTA-RPS12-C

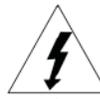
**WARNING:** TO PREVENT FIRE OR ELECTRICAL SHOCK, DO NOT EXPOSE TO RAIN OR MOISTURE



A product and cart combination should be moved with care. Quick stops, excessive force and uneven surfaces may cause the product and cart combination to overturn.

**WARNING:** THE SOCKET-OUTLET SHALL BE INSTALLED NEAR THE EQUIPMENT AND SHALL BE EASILY ACCESSIBLE.

	<b>CAUTION</b> RISK OF ELECTRIC SHOCK DO NOT OPEN	
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER. NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED PERSONNEL		



The lightning flash with arrow head symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT OPEN THE CABINET, REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

**CAUTION:** TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

**ATTENTION:** POUR PREVENIR LES CHOCES ELECTRIQUES, NE PAS UTILISER CETTE FICHE POLARISEE AVEC UN PROLONGATEUR, UNE PRISE DE COURANT OU UNE AUTRE SORTIE DE COURANT, SAUF SI LES LAMES PEUVENT ETRE INSEREES A FOND SANS EN LAISSER AUCUNE PARTIE A DECOUVERT.

**IMPORTANT SAFETY INSTRUCTIONS**

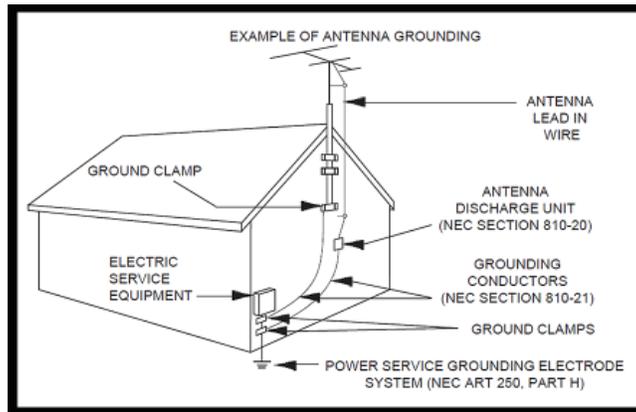
1. Read Instructions—All the safety and operating instructions should be read before the product is operated.
2. Retain Instructions—The safety and operating instructions should be retained for future reference.
3. Heed Warnings—All warnings on the product and in the operating instructions should be adhered to.
4. Follow Instructions—All operating and use instructions should be followed.
5. Cleaning—Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleansers. Use a damp cloth for cleaning.
6. Attachments—Do not use attachments that are not recommended by the product manufacturer as they may cause hazards.
7. Water and Moisture—Do not use this product near water—for example, near a bathtub, wash bowl, kitchen sink or laundry tub; in a wet basement; or near a swimming pool; and the like.
8. Accessories—Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product.  
Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
9. A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
10. Ventilation—Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or similar surface. This product should not be placed in a built-in installation such as bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
11. Power Sources—This product should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied to your home, consult your product dealer or local power company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
12. Grounding or Polarization—This product may be equipped with a polarized alternating-current line plug (a plug having one blade wider than the other). This plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug should still fail to fit, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the polarized plug.  
Alternate Warnings—If this product is equipped with a three-wire grounding-type plug, a plug having a third (grounding) pin, the plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
13. Power-Cord Protection—Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the product.
14. Outdoor Antenna Grounding—to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure A.
15. Lightning—For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system. This will prevent damage to the product due to lightning and power-line surges.
16. Power Lines—An outside antenna system should not be located in the vicinity of overhead power lines, other electric light or power circuits, where it can fall into such power lines or circuits.
17. Overloading—Do not overload wall outlets, extension cords, or integral convenience receptacles as this can result in a risk of fire or electric shock.
18. Object and Liquid Entry—Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
19. Servicing—Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
20. Damage Requiring Service—Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
  - a. When the power-supply cord or plug is damaged,
  - b. If liquid has been spilled, or objects have fallen into the product,
  - c. If the product has been exposed to rain or water,
  - d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation,

**IMPORTANT SAFETY INSTRUCTIONS (Continued)**

- e. If the product has been dropped or damaged in any way, and
  - f. When the product exhibits a distinct change in performance—this indicates a need for service.
21. Replacement Parts—When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutes may result in fire, electric shock or other hazards.
  22. Safety Check—Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
  23. Wall or Ceiling Mounting—The product should be mounted to a wall or ceiling only as recommended by the manufacturer.
  24. Heat—The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

**NOTE TO CATV SYSTEM INSTALLERS: THIS REMINDER IS PROVIDED TO CALL THE CATV SYSTEM INSTALLER'S ATTENTION TO ARTICLE 820 - 40 OF THE NEC THAT PROVIDES GUIDELINES FOR PROPER GROUNDING AND, IN PARTICULAR, SPECIFIES THAT THE CABLE GROUND SHALL BE CONNECTED TO THE GROUNDING SYSTEM OF THE BUILDING, AS CLOSE TO THE POINT OF CABLE ENTRY AS PRACTICAL.**

EXAMPLE OF ANTENNA GROUNDING

**CONNECTIONS AND INSTALLATION**

1. Using 4 mounting screws (not included), secure the DTA-RPS12-C CHASSIS to a 19 inch rack. You may wish to install the FRONT PANEL END COVERS while doing this if you wish to have the ends of the DTA-RPS12-C match the color of the FRONT COVER once the FRONT COVER is installed.
2. Secure the Drake RMM12 Rack Mount Chassis for Mini Mods\* to the 19 inch Rack using 4 rack mounting screws (not included).
3. Insert 12 Drake MPM860AG Channel 3 / 4 Agile Mini Video Processors\* into the RMM12. (See STEP 4 under SETUP, as it will be very convenient to make the selection mentioned in STEP 4 right NOW, as opposed to later once everything is installed.)
4. Insert the Drake PSM121 12-Unit Mini Mod Power Supply\* into the RMM12.
5. Insert the 12 Drake MPM860G Channel 3 / 4 Agile Mini Video Processors into the open spots in the RMM12.
6. Connect the PSM121's power harness cables to each of the MPM860AG's.

**DO NOT CONNECT THE PSM121 INTO A WALL OUTLET NOR ANY OTHER POWER SOURCE YET!!!**

7. Secure a 12 Way Splitter\* to the 2 threaded posts located on the rear of the DTA-RPS12-C CHASSIS using the two nuts included with the DTA-RPS12-C CHASSIS.
6. Connect the digital cable feed (via coaxial cable) to the input port of the 12 Way Splitter.
7. Connect each of the 12 Way Splitter's outputs to its own DTA receiver\* using coaxial cable.
8. Pair up each DTA with its own Drake MPM860AG Channel 3 / 4 Agile Mini Video Processor, one-to-one, by connecting the output of each individual DTA to the input on the rear of each MPM860AG using coaxial cable. Ensure that these video connections are secure. *Make a note of which DTA is paired with which MPM860AG.*
9. Insert the 12 DTA receivers into the DTA-RPS12-C CHASSIS.
10. Use the DTA POWER JUMPER CABLES to connect each DTA to the enclosed power source connections on the rear of the DTA-RPS12-C.

**DO NOT CONNECT THE DTA-RPS12-C POWER CABLE INTO A WALL OUTLET NOR ANY OTHER POWER SOURCE YET!!!**

11. Install the DTA-RPS12-C FRONT PANEL over the opening where all of the DTA's are now stored using the 6 included screws.
12. Connect the output of each MPM860AG with one of the input ports on the DRAKE PC1201 12-Port Passive Combiner (sold separately).
13. Connect the combined output of the PC1201 to the outgoing port exiting your headend.
14. Install the PC1201 into the 19 inch rack using rack mounting screws (not included).
15. Once your 19 inch rack with all components installed has been placed securely in a permanent location, plug the POWER CORD from the DTA-RPS12-C into a wall power outlet.
16. Allow a minute or two for the DTA receivers to boot up, and then plug the power cable from the Drake PSM121 into the wall power outlet.

**SETUP**

1. Set the tuner on each individual DTA Receiver with a remote control unit (should be provided with your DTA receivers).
2. Set the output of each DTA to either Channel 3 or Channel 4 on the standard CATV Channel Plan. Make a note as to what each selected channel/program/station is being tuned per each individual DTA receiver. Be sure to also note what CATV Output channel you have selected for each DTA. For simplicity, we recommend setting all of your DTA's to output CATV Channel 3 or setting all of them to output CATV Channel 4. *Consult the Instruction Manual included with the DTA Receivers to learn how to select a channel from the incoming digital channel plan, and also to ensure that the output of each DTA Receiver is modulated/outputting on either CATV Channel 3 or Channel 4.*
3. Set the input channel on each Drake MPM860AG on its front panel to either Channel 3 or Channel 4, whichever is correct.
4. Set the output channel on each Drake MPM860AG to the desired CATV channel that you wish to have the program modulated to.
5. Make note of all incoming program/channel selections, DTA-to-MPM860AG pairings, Channel 3 or 4 selection per DTA / MPM860AG, and the output CATV Channel of each MPM860AG.

**SPECIFICATIONS**

POWER:	100 - 240 VAC $\pm$ 10%, 60 Hz, 120 W, (per DTA device)
PHYSICAL DIMENSIONS:	19.00" W x 9.00" H x 5.24" D
WEIGHT:	12 lbs

Seller will at its sole option, either repair or replace (with a new or factory reconditioned product, as Seller may determine) any product manufactured or sold (or in the case of software, licensed) by Seller which is defective in materials or workmanship or fails to meet the applicable specifications that are in effect on the date of shipment or such other specifications as may have been expressly agreed upon in writing: (i) for a period of three (3) years from the date of original purchase for all stock hardware products (other than those specifically referenced herein below having a shorter warranty period); (ii) for a period of one (1) year from the date of original purchase, with respect to all MegaPort™, IPTV products, test equipment and fiber optics receivers, transmitters, couplers and integrated receiver/distribution amplifiers; (iii) for a period of one (1) year from the date of original purchase (or such shorter period of time as may be set forth in the license agreement specific to the particular software being licensed from Seller) with respect to all software products licensed from Seller (other than Core Product Software) that is (a) developed for a specific function or application, (b) complimentary to and does not function without the Core Product Software, and (c) listed with a specific model number and stock number in Seller's Price List ("Non-Core Software"); (iv) for a period of ninety (90) days from the date of original purchase, with respect to non-serialized products and accessories, such as parts, sub-assemblies, splitters and all other products sold by Seller (other than Core Product Software and Refurbished/Closeout Products) not otherwise referred to in clauses (i) through (iii) above. The warranty period for computer programs in machine-readable form included in a hardware product, which are essential for the functionality thereof as specifically stated in the published product specifications ("Core Product Software") will be coincident with the warranty period of the applicable hardware product within which such Core Product Software is installed.

Software patches, bug fixes, updates or workarounds do not extend the original warranty period of any Core Product Software or Non-Core Software.

Notwithstanding anything herein to the contrary,

(i) Seller's sole obligation for software that when properly installed and used does not substantially conform to the published specifications in effect when the software is first shipped by Seller, is to use commercially reasonable efforts to correct any reproducible material non-conformity (as determined by Seller in its sole discretion) by providing the customer with: (a) telephone or e-mail access to report non-conformance so that Seller can verify reproducibility, (b) a software patch or bug fix, if available or a workaround to bypass the issue if available, and (c) where applicable, replacement or damaged or defective external media, such as CD-ROM disk, on which the software was originally delivered;

(ii) Seller does not warrant that the use of any software will be uninterrupted, error-free, free of security vulnerabilities or that the software will meet the customer's particular requirements; and the customer's sole and exclusive remedy for breach of this warranty is, at Seller's option, to receive (a) suitably modified software, or part thereof, or (b) comparable replacement software or part thereof;

(iii) Seller retains all right, title and interest in and to and ownership of all software (including all Core Product Software and Non-Core Software) including any and all enhancements, modifications and updates to the same; and

(iv) in some cases, the warranty on certain proprietary sub-assembly modules manufactured by third-party vendors and contained in Seller's products, third party software installed in certain of Seller's products, and on certain private-label products manufactured by third-parties for resale by Seller, will be of shorter duration or otherwise more limited than the standard Seller limited warranty. In such cases, Seller's warranty with respect to such third-party proprietary sub-assembly modules, third-party software and private-label products will be limited to the duration and other terms of such third-party vendor's warranty, if any. In addition, certain products, that are not manufactured by Seller, but are resold by Seller, may carry the original OEM warranty for such products, if any. The limited warranty set forth above does not apply to any product sold by Seller, which at the time of sale constituted a Refurbished/Closeout Product, the limited warranty for which is provided in the following paragraph.

Seller will at its sole option, either repair or replace (with a new or factory-reconditioned product, as Seller may determine) any product sold by Seller which at the time of sale constituted a refurbished or closeout item ("Refurbished/Closeout Product"), which is defective in materials or workmanship or fails to meet the applicable specifications that are in effect on the date of shipment of that product or fails to meet such other specifications as may have been expressly agreed upon in writing between the parties, for a period of ninety (90) days from the date of original purchase. Notwithstanding the foregoing, in some cases the warranty on certain proprietary sub-assembly modules manufactured by third-party vendors and contained in Seller products, third party software installed in certain of Seller's products, and on certain private-label products manufactured by third-parties for resale by Seller will be of shorter duration or otherwise more limited than Seller limited warranty for Refurbished/Closeout Products. In such cases, Seller's warranty for Refurbished/Closeout Products constituting such third party proprietary sub-assembly modules, third party software, and private-label products will be limited to the duration and other terms of such third-party vendor's warranty, if any. In addition, notwithstanding the foregoing, (i) certain Refurbished/Closeout Products that are not manufactured (but are resold) by Seller, may carry the original OEM warranty for such products, if any, which may be longer or shorter than Seller's limited warranty for Refurbished/Closeout Products. All sales of Refurbished/Closeout Products are final.

To obtain service under this warranty, the defective product, together with a copy of the sales receipt, serial number if applicable, or other satisfactory proof of purchase and a brief description of the defect, must be shipped freight prepaid to Seller at the following address: One Jake Brown Road, Old Bridge, New Jersey 08857..

This warranty does not cover failure of performance or damage resulting from (i) use or installation other than in strict accordance with manufacturer's written instructions, (ii) disassembly or repair by someone other than the manufacturer or a manufacturer-authorized repair center, (iii) misuse, misapplication or abuse, (iv) alteration, (v) exposure to unusual physical or electrical stress, abuse or accident or forces or exposure beyond normal use within specified operational or environmental parameters set forth in applicable product specifications, (vi) lack of reasonable care or (vii) wind, ice, snow, rain, lightning, or any other weather conditions or acts of God.

**OTHER THAN THE WARRANTIES SET FORTH ABOVE, SELLER MAKES NO OTHER WARRANTIES OR REPRESENTATIONS OF ANY KIND, EXPRESS OR IMPLIED, AS TO THE CONDITION, DESCRIPTION, FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, OR AS TO ANY OTHER MATTER, AND SUCH WARRANTIES SET FORTH ABOVE SUPERSEDE ANY ORAL OR WRITTEN WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY SELLER OR BY ANY OF SELLER'S EMPLOYEES OR REPRESENTATIVES, OR IN ANY OF SELLER'S BROCHURES MANUALS, CATALOGS, LITERATURE OR OTHER MATERIALS. IN ALL CASES, BUYER'S SOLE AND EXCLUSIVE REMEDY AND SELLER'S SOLE OBLIGATION FOR ANY BREACH OF THE WARRANTIES CONTAINED HEREIN SHALL BE LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE PRODUCT F.O.B. SHIPPING POINT, AS SELLER IN ITS SOLE DISCRETION SHALL DETERMINE. SELLER SHALL IN NO EVENT AND UNDER NO CIRCUMSTANCES BE LIABLE OR RESPONSIBLE FOR ANY CONSEQUENTIAL, INDIRECT, INCIDENTAL, PUNITIVE, DIRECT OR SPECIAL DAMAGES BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT LIABILITY OR OTHERWISE OR ANY OTHER LEGAL THEORY, ARISING DIRECTLY OR INDIRECTLY FROM THE SALE, USE, INSTALLATION OR FAILURE OF ANY PRODUCT ACQUIRED BY BUYER FROM SELLER.**

All claims for shortages, defects, and non-conforming goods must be made by the customer in writing within five (5) days of receipt of merchandise, which writing shall state with particularity all material facts concerning the claim then known to the customer. Upon any such claim, the customer shall hold the goods complained of intact and duly protected, for a period of up to sixty (60) days. Upon the request of Seller, the customer shall ship such allegedly non-conforming or defective goods, freight prepaid to Seller for examination by Seller's inspection department and verification of the defect. Seller, at its option, will either repair, replace or issue a credit for products determined to be defective. Seller's liability and responsibility for defective products is specifically limited to the defective item or to credit towards the original billing. All such replacements by Seller shall be made free of charge f.o.b. the delivery point called for in the original order. Products for which replacement has been made under the provisions of this clause shall become the property of Seller. Under no circumstances are products to be returned to Seller without Seller's prior written authorization. Seller reserves the right to scrap any unauthorized returns on a no-credit basis. Any actions for breach of a contract of sale between Seller and a customer must be commenced by the customer within thirteen (13) months after the cause of action has accrued. A copy of Seller's standard terms and conditions of sale, including the limited warranty, is available from Seller upon request. Copies of the limited warranties covering third-party proprietary sub-assembly modules and private-label products manufactured by third-parties may also be available from Seller on request. (Rev 0713)

