

Auction 108

Public Reporting System File Formats

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1. Announcements

File Name: announcements.csv

The announcements that are available to the public are in this file.

File Structure:

- CSV file (first row contains header)
- One record per round

Field	Description	Data Type	Example/Notes
auction_id	The FCC auction number for the auction	String	108
announcement_time	Time the announcement was posted	String YYYY-MM-DD HH:MM:SS	2021-10-10 11:00:00 <i>All times are in Eastern Time</i>
subject	Subject of announcement	String	Round 2 begins next.
announcement	Text of the announcement	String	"As a reminder, Auction begins next round..."

2. Round Summary

File Name: round_summary.csv

The Round Summary file provides high-level information for each round.

File Structure:

- CSV file (first row contains header)
- One record per round

Field	Description	Data Type	Example/Notes
auction_id	The FCC auction number for the auction	String	108
auction_description	Description of auction	String	2.5 GHz
round	Round number	Integer	12
start_time	Round starting time	String YYYY-MM-DD HH:MM:SS	2021-10-10 10:00:00 <i>All times are in Eastern Time</i>

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Field	Description	Data Type	Example/Notes
end_time	Round ending time	String YYYY-MM-DD HH:MM:SS	2021-10-10 12:00:00 <i>All times are in Eastern Time</i>
proceeds	Actual gross proceeds after the round	Integer	2077000000
net_proceeds	Net proceeds based on the processed bids	Integer	1990000000 <i>If the round is not the final round of the auction, bidding credits are incorporated with a worst-case calculation. In the final round of the auction, it is the sum, over all bidders, of a bidder's commitment minus its capped commitment discount.</i>
activity_requirement_percentage	Activity requirement percentage for a bidder for this round	Integer	100 80 <i>100 = 100% 80 = 80%</i>
contingent_bidding_limit_percentage	Maximum activity percentage that a bidder can submit in this round	Integer	120 <i>120 = 120%</i>
increment_percentage	Increment percentage	Integer	10 <i>10 = 10%</i>
increment_cap	Maximum price increment	Integer	500000
products_with_aggregate_demand_greater_than_1	Number of products (market-category combination) with aggregate demand greater than 1	Integer	2900
products_with_aggregate_demand_equal_to_1	Number of products (market-category combination) with aggregate demand equal to 1	Integer	5
products_with_aggregate_demand_equal_to_0	Number of products (market-category combination) with aggregate demand equal to 0	Integer	2

3. Bids

File Name: bids.csv

The Bids file provides a list of all the bids considered by the bidding system in each round. Each bid pertains to a specific product (county and license category combination) offered.

In addition to providing information about the bid, the file provides information about the associated product in that round, such as the start of round price, clock price, and the aggregate demand from the previous round.

File Structure:

- CSV file (first row contains header)
- One record per round and bid combination
- This file may also contain missing bids submitted by the bidding system. A missing bid is a simple bid for a quantity of 0 at the lowest possible price for the product in that round.
- The file contains two entries for each switch bid: one for the “from” category and one for the “to” category. The “from” and “to” categories are listed in both records in switch_from_category and switch_to_category.

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for the auction	String	108
round	Round number	Integer	12
bidder	Bidder name	String	Company XYZ “ABC, Inc.”
frn	The bidder’s FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645844
market	The county ID	String ([StateID]-[0-9][0-9][0-9]){6}	AL-001
market_name	The county name	String	Autauga
category	The license category	String [C1 C2 C3] {2}	C1 C2 C3
bidding_units	Bidding units associated with the product	Integer	200
bid_type	Type of bid	String [Simple Switch]	Simple Switch

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Field	Description	Data Type	Examples/Notes
quantity	Quantity associated with the bid	Integer	1 0 <i>This value is the requested quantity for the product (not the number of blocks to be reduced or switched)</i>
price	Price associated with the bid	Integer	125000 <i>For the “to” product in a switch bid, this value is the clock price associated with the product</i>
price_point	The price point associated with the bid	Decimal [0-1] {10}	0.7560548272 <i>In Round 1 this value is 1.0000000000</i> <i>For the “to” product in a switch bid, this value will always be 1.0000000000 regardless of the price point of the “from” product</i>
switch_from_category	For the “to” product in a switch bid, this field indicates the license category of the “from” product in a switch bid	String [C1 C2] {2}	C1 C2 <i>Null when bid type is “Simple”</i> <i>Null for the “from” product of a switch bid</i>
switch_to_category	For the “from” product in a switch bid, this field indicates the license category of the “to” product in a switch bid	String [C1 C2] {2}	C1 C2 <i>Null when bid type is “Simple”</i> <i>Null for the “to” product of a switch bid</i>
previous_round_aggregate_demand	The aggregate demand for the product at the start of the round (the same as when results for the previous round were posted)	Integer	12 <i>Null for Round 1</i>

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Field	Description	Data Type	Examples/Notes
previous_round_processed_demand	The bidder's processed demand for the product at the start of the round (the same as when results for the previous round were posted)	Integer	1 <i>Null for Round 1</i>
start_of_round_price	The lowest price available for bidding on the product in the round	Integer	115000 <i>In Round 1 this is the opening price, for all other rounds it is the posted price from the previous round</i>
clock_price	The clock price (highest price) for the product in the round	Integer	125000
selection_number	The pseudo-random number associated with the bid used for tie-breaking purposes	Integer {1,15}	123456789012345

4. Results

File Name: results.csv

The Results file provides a list of the results of bid processing for all products (county and license category combinations) for which each bidder had processed demand in the previous round and/or submitted a bid for the product in the previous round. For each product, the file gives the processed demand, posted price, and the aggregate demand. Additionally, the file indicates if a bid was not applied and provides details about why the bid for the product was not applied.

File Structure:

- CSV file (first row contains header)
- One record for each round and product combination where bidders had processed demand for the product in the previous round and/or submitted a bid for the product in the previous round

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for the auction	String	108
round	Round number	Integer	12
bidder	Bidder name	String	Company XYZ "ABC, Inc."
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645844

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Field	Description	Data Type	Examples/Notes
market	The county ID	String ([StateID]-[0-9][0-9][0-9]){6}	AL-001
market_name	The county name	String	Autauga
category	The license category	String [C1 C2 C3] {2}	C1 C2 C3
processed_demand	The bidder's demand for the product after bid processing	Integer	1
fully_processed_flag	A flag that indicates whether a bid for the product was processed	String [Y N]	Y N <i>If a switch bid is not processed, both the "from" and "to" categories will have an "N"</i>
processed_demand_detail	Details about why a bid for the product was not applied during bid processing	String {500}	<p>"Simple bid to increase demand to 1 @ \$147,000: 1 block was not applied due to insufficient eligibility."</p> <p>"Simple bid to reduce demand to 0 @ \$10,000: 1 block was not applied due to insufficient aggregate demand. The system created a proxy instruction to re-submit this bid in the next round."</p> <p><i>If a switch bid was not processed, the message will be in the record for both the switch from and to categories</i></p> <p><i>Null if a bid for the product was applied</i></p>
bidding_units	Bidding units associated with the product	Integer	200
aggregate_demand	The aggregate demand for the product after bid processing	Integer	15

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Field	Description	Data Type	Examples/Notes
posted_price	The posted price for the product after bid processing	Integer	300000

5. Results by License

File Name: results_by_license.csv

The Results by License file provides final license authorization price information for each license authorization assigned in the auction. It includes records for all license authorizations assigned to bidders.

File Structure:

- CSV file (first row contains header)
- One record per license won

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for the auction	String	108
license	The combined license name	String [D]{census_id}-[1-3]{1}	<p>D06045-1</p> <ul style="list-style-type: none"> • <i>D denotes 2017 census data reflecting county legal boundaries and names.</i> • <i>{census_id} is the 5-digit FIPS code for the county (e.g., 06045).</i> • <i>the number at the end represents the channel block, which is the same as the category.</i> <p><i>There can be up to 3 licenses listed for every county: xxxx-1, xxxx-2, xxxx-3.</i></p>
market	The county ID	String ([StateID]-[0-9][0-9][0-9]){6}	AL-001
market_name	The county name	String	Autauga

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Field	Description	Data Type	Examples/Notes
category	The license category	String [C1 C2 C3] {2}	C1 C2 C3
bidder	Bidder name	String	Company XYZ "ABC, Inc."
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645844
bidding_credit_type	Indicates the type of bidding credit for the bidder that won the license	String [Rural Small Business]	Small Business Rural <i>Null if no bidding credit for the bidder</i>
bidding_credit	The bidding credit percentage associated with the bidder 0 = no bidding credit 15 = 15% bidding credit 25 = 25% bidding credit	Numeric [0 15 25]	0 15 25
gross_license_price	The gross price of the license	Integer	1455000
net_license_price	The net price of the license after apportioning the bidding credit discount, if any	Integer	1239417 <i>net_license_price will equal gross_license_price for a bidder without a bidding credit.</i>
effective_bidding_credit	Calculated as 100 times 1-(net_license_price/gross_license_price)	Decimal	14.42 <i>Rounded to the nearest 2 decimal places</i>

6. Unassigned Licenses

File Name: unassigned_licenses.csv

The Unassigned Licenses file includes information for each unassigned license in the auction.

File Structure:

- CSV file (first row contains header)
- One record per unassigned license

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Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for the auction	String	108
license	The combined license name	String [D]{census_id}- [1-3]{1}	D06045-1 <ul style="list-style-type: none"> • <i>D denotes 2017 census data reflecting county legal boundaries and names.</i> • <i>{census_id} is the 5-digit FIPS code for the county (e.g., 06045).</i> • <i>the number at the end represents the channel block, which is the same as the category.</i> <i>There can be up to 3 licenses listed for every county: xxxx-1, xxxx-2, xxxx-3.</i>
market	The county ID	String ([StateID]-[0-9][0-9][0-9]){6}	AL-001
market_name	The county name	String	Autauga
category	The license category	String [C1 C2 C3] {2}	C1 C2 C3

7. Product Status

File Name: product_status.csv

The Product Status file provides the status of each product (county and license category combination) after bid processing in each round. For each product, the file includes the posted price, aggregate demand, and the clock price in the next round. Additionally, the file provides supporting information about each product such as the opening price and clock price for the round, bidding units, and population.

File Structure:

- CSV file (first row contains header)
- One record for each round and product combination

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Field	Description	Data Type	Example/Notes
auction_id	The FCC auction number for the auction	String	108
round	Round number	Integer	12
market	The county ID	String ([StateID]- [0-9][0-9] [0-9]){6}	AL-001
market_name	The county name	String	Autauga
category	The license category	String [C1 C2 C3] {2}	C1 C2 C3
small_market_indicator	A flag that indicates whether the market is subject to the small market bidding credit cap	String [Y N] {1}	Y N
population	Population of the county	Integer	54571
bidding_units	Bidding units associated with the product	Integer	200
start_of_round_price	The lowest price available for bidding on the product in the round	Integer	200000 <i>In Round 1 this is the opening price, for all other rounds it is the posted price from the previous round</i>
clock_price	The clock price (highest price) for the product in the round	Integer	300000 <i>The clock_price can be higher than the posted price for the round</i>
aggregate_demand	The aggregate demand for the product after bid processing	Integer	15
posted_price	The posted price for the product after bid processing	Integer	300000
next_round_clock_price	The clock price (highest price) for the product in the next round	Integer	500000 <i>Null if auction has concluded</i>

8. Bidder Status

File Name: bidder_status.csv

The Bidder Status file provides information related to bidders for a round. For each round the file gives bidders’ eligibilities, required activities, contingent bidding limits, and bidding activities in the round. The results of bid processing are also given for the round including the bidders’ processed activities as well as the bidders’ eligibilities, required activities, and contingent bidding limits for the next round. Financial information for the bidders’ requested commitments, processed commitments, net requested commitments, and processed net commitments are also given.

File Structure:

- CSV file (first row contains header)
- One record for each round and bidder combination

Field	Description	Data Type	Examples/Notes
auction_id	The FCC auction number for the auction	String	108
round	Round number	Integer	12
bidder	Bidder name	String	Company XYZ “ABC, Inc.”
frn	The bidder’s FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645844
bidding_credit	The bidding credit percentage associated with the bidder 0 = no bidding credit 15 = 15% bidding credit 25 = 25% bidding credit	Integer [0 15 25]	0 15 25
bidding_credit_type	Indicates the type of bidding credit that the bidder is eligible to receive Rural = bidder is eligible for the rural service provider bidding credit Small Business = bidder is eligible for the small business bidding credit	String [Rural Small Business]	Small Business Rural <i>Null if the bidder is not eligible for a bidding credit</i>
eligibility	The bidder’s eligibility in bidding units at the start of round	Integer	8000000

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Field	Description	Data Type	Examples/Notes
contingent_bidding_limit	The bidder's maximum activity that it can submit for the round	Integer	10000000 <i>For Round 1, contingent_bidding_limit = eligibility</i>
required_activity	The bidder's required activity in bidding units for the round	Integer	5000000
activity	The bidder's bidding activity in bidding units for the round	Integer	4000000
requested_commitment	The bidder's requested commitment in dollars for the round	Integer	346000000
requested_commitment_discount	The bidder's requested discount in dollars for the round based on any bidding credits and applying any bidding credit caps	Integer	10000000 <i>Null if the bidder is not eligible for a bidding credit</i>
requested_net_commitment	The bidder's requested net commitment in dollars for the round	Integer	336000000 <i>Null if the bidder is not eligible for a bidding credit</i>
requested_commitment_discount_uncapped	The bidder's requested discount in dollars for the round based on any bidding credits without applying any bidding credit caps	Integer	16000000 <i>Null if the bidder is not eligible for a bidding credit</i>
requested_commitment_discount_uncapped_small	The bidder's requested discount in dollars for the round in the small markets based on any bidding credits without applying any bidding credit caps	Integer	11000000 <i>Null if the bidder is not eligible for the small business bidding credit</i>
processed_activity	The bidder's bidding activity in bidding units after bid processing	Integer	4100000
commitment	The bidder's commitment in dollars for the round	Integer	348500000
commitment_discount	The bidder's discount in dollars for the round based on any bidding credits and applying any bidding credit caps	Integer	10000000 <i>Null if the bidder is not eligible for a bidding credit</i>

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Field	Description	Data Type	Examples/Notes
net_commitment	The bidder's net commitment in dollars for the round	Integer	338500000 <i>Null if the bidder is not eligible for a bidding credit</i>
commitment_discount_uncapped	The bidder's discount in dollars for the round based on any bidding credits without applying any bidding credit caps	Integer	15900000 <i>Null if the bidder is not eligible for a bidding credit</i>
commitment_discount_uncapped_small	The bidder's discount in dollars for the round in the small markets based on any bidding credits without applying any bidding credit caps	Integer	11900000 <i>Null if the bidder is not eligible for a small business bidding credit</i>
next_round_eligibility	The bidder's eligibility in bidding units at the start of the next round	Integer	5125000 <i>Null if auction has concluded</i>
next_round_contingent_bidding_limit	The bidder's maximum activity that it can submit for the next round	Integer	5300000 <i>Null if auction has concluded</i>
next_round_required_activity	The bidder's required activity in bidding units for the next round	Integer	4100000 <i>Null if auction has concluded</i>

9. Bidder Markets

File Name: bidder_markets.csv

The Bidder Markets file lists the markets each bidder selected on its FCC Form 175.

File Structure:

- CSV file (first row contains header)
- One record for each bidder and market combination

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	108
bidder	Bidder name	String	Company XYZ "ABC, Inc."

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Field	Description	Data Type	Examples
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645844
market	The county ID	String ([StateID]-[0-9][0-9][0-9]){6}	AL-001
market_name	The county name	String	Autauga
selected_market	A flag that indicates whether the bidder selected the county on its Form 175	String [Y N] {1}	Y N

10. Bidders

File Name: bidders.csv

The bidders file provides the list of qualified bidders in the auction and information about the bidding credit, if any, associated with each bidder.

File Structure:

- CSV file (first row contains header)
- One record for each bidder

Field	Description	Data Type	Example/Notes
auction_id	The FCC auction number for the auction	String	108
bidder	Bidder name	String	Company XYZ "ABC, Inc."
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0003645844
eligibility	Initial eligibility in bidding units	Integer	8000000
bidding_credit	The bidding credit percentage associated with the bidder 0 = no bidding credit 15 = 15% bidding credit 25 = 25% bidding credit	Integer [0 15 25]	15 25 0

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Field	Description	Data Type	Example/Notes
bidding_credit_type	Indicates the type of bidding credit for the bidder Rural = rural service provider bidding credit Small Business = small business bidding credit	String [Rural Small Business]	Rural Small Business <i>Null if no bidding credit for the bidder</i>

11. Markets

File Name: markets.csv

The Markets file defines the geographic markets in the auction. The geographic markets are counties. For each county the file provides the market number, name, population, bidding units, and whether the market is subject to the small market bidding credit cap.

File Structure:

- CSV file (first row contains header)
- One record for each market available in the auction

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	108
market	The county ID	String ([StateID]-[0-9][0-9][0-9]){6}	AL-001
market_name	The county name	String	Autauga
census_id	The FIPS ID for the county: 2-character state FIPS code followed by 3-character county FIPS code	String	01123
population	Population of the county	Integer	54571
small_market_indicator	A flag that indicates whether the market is subject to the small market bidding credit cap	String [Y N] {1}	Y N

Appendix: Data Type Definitions

The following is a guide to interpreting data types defined in this document. This guide is based on regular expressions used in XML.

Valid Data Types Used in This Document

Character: A character is a single standard ASCII character. The following list has examples of valid ASCII characters:

- a
- D
- 3
- %

String: A string contains one or more characters and can contain whitespace. The following list has examples of valid strings:

- PEA001
- 005
- 588.3-593.3 MHz + 628.3-633.3 MHz
- Huntsville-Decatur-Florence, AL

Note that strings containing a comma that are included in a CSV formatted file need to include quotation marks around them. In the above example, “Huntsville-Decatur-Florence, AL” would be the correct format for the string in a CSV file.

Numeric: Numeric is a generic data type that covers a number of different underlying data types. As a result, anything defined as numeric could be any of the following:

- Decimal
- Integer
- Long

Decimal: The Decimal data type is used to specify a number that may optionally contain a fractional portion. The decimal numbers in the bidding system are made with 2 decimal places.

The following are examples of valid decimals:

- 123.45
- -0.15
- .67
- 0.30

The following are examples of invalid decimals:

- 123.4.5
- 5+6
- 1.4545E6
- 5,121.00

Integer: The integer data type is used to specify a numeric value without a fractional component.

- It's assumed that any integers defined in this document are unsigned and never include a (+) plus or (-) minus sign. Any signed integers containing a + or – are considered invalid.
- If the integer is of defined length, then curly brackets should be used. For example, {3} indicates the integer should be exactly 3 numbers long.

The following are examples of valid integers:

- 009
- 9
- 2147483647

The following are examples of invalid integers:

- -009
- +009

Null: Regardless of the data type, under certain conditions a field may be *null*, which means there is no data for that field (i.e., the field is blank).

Restricting Values for a Data Type

Restrictions are used to define acceptable values for any given data type. The following lexicon is used when defining data types:

- Square brackets define the *pattern*.
 - e.g., [A-L] means only the uppercase letters A through L are allowed.
 - e.g., [U|D] means only the uppercase letters U or D are allowed.
 - e.g., [0-9] means only the numbers 0 through 9 are allowed.
- Curly brackets define the *length* including whitespace.
 - e.g., {3} means the value has to be exactly 3 characters long.
 - e.g., {1,3} means the value has to be a minimum of 1 character and a maximum of 3 characters.
 - e.g., {0,50} means the value has to be a minimum of 0 characters and a maximum of 50 characters.

Example 1:

The Data Type is defined as follows:

Integer
{3}

The curly brackets mean only a 3-digit integer is allowed.

Valid values for example 1:

- 009
- 056
- 103

Invalid values for example 1:

- 3502

- 1
- +12
- -35

Example 2:

The Data Type is defined as follows:

String
[A-L]{1}

The square brackets mean only the uppercase letters A through L are allowed and the curly brackets mean it must be exactly 1 character long.

Valid values for example 2:

- B
- L

Invalid values for example 2:

- a
- M
- 6

Example 3:

The Data Type is defined as follows:

String
[0-9]{3}

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be 3 characters long.

Valid values for example 3:

- 001
- 023
- 358

Invalid values for example 3:

- 2
- 01
- 2026

Example 4:

The Data Type is defined as follows:

String
[0-9]{1,2}

The square brackets mean only the numbers 0 through 9 are allowed and the curly brackets mean it must be a minimum of 1 character long and a maximum of 2 characters long.

Valid values for example 4:

- 4
- 04

- 41

Invalid values for example 4:

- 123
- Blank or null value

Example 5:

The Data Type is defined as follows:

String
[US|CA|MX]{2}

The square brackets mean the pattern must be either US, CA or MX. The curly brackets mean it must be exactly 2 characters long.

Valid values for example 5:

- US
- CA

Invalid values for example 5:

- C
- USA

Example 6:

The Data Type is defined as follows:

String
((PEA|[0-9]|[0-9]|[0-9]){6})

The square brackets inside the round brackets mean the pattern must be a concatenation of the text “PEA” followed by three single numbers, with each number ranging from 0 through 9. The curly brackets mean it must be exactly 6 characters long.

Valid values for example 6:

- PEA002
- PEA356

Invalid values for example 6:

- PEA0001
- PEA-005
- PEA-05
- PEA-0512
- PEA-2

Example 7:

The Data Type is defined as follows:

String
{0,50}

The absence of square brackets means there are no restrictions to the characters in this string. The curly brackets mean it must be a minimum of 0 characters long (i.e., can be blank/null) and a maximum of 50 characters long.

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Valid values for example 7:

- 588.3-593.3 MHz + 628.3-633.3 MHz
- Albuquerque-Santa Fe, NM

Invalid values for example 7:

- Greenville-Spartanburg, SC-Asheville, NC-Anderson, SC
- This is an invalid string which is longer than 50 characters including spaces.