Auction 103
Public Reporting System File Formats

Version 1.1 – March 12, 2020

Contents

1. Clock Phase

1.1. Auction Summary

File name: clock_auction_summary.csv

The Auction 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	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
auction_description	Description of auction	String	"Upper 37 GHz, 39 GHz, and 47 GHz"
round	Round number	Integer	12
start_time	Round starting time	String YYYY-MM-DD HH:MM:SS	2019-12-10 10:00:00 *All times are in Eastern Time.*
end_time	Round ending time	String YYYY-MM-DD HH:MM:SS	2019-12-10 12:00:00 *All times are in Eastern Time.*
net_revenue_requirement_met	Flag indicating whether the net revenue requirement has been met	Character [Y, N]	Y N
proceeds	Actual gross proceeds after the round	Integer	2077000000
net_proceeds_bids	Net proceeds based on the processed bids	Integer	1990000000 *If the round is not the final clock round, bidding credits are incorporated with a worst-case calculation (two lower bounds for the proceeds net of bidding credits using the larger of the two). In the last round of the auction it is the sum, over all bidders, of a bidder's commitment minus its capped commitment discount.*

Field	Description	Data Type	Examples/*Notes*
total_incentive_payment	Total incentive payment for all incumbents relinquishing one or more licenses based on posted prices for the round.	Integer	1887000000
net_proceeds_auction	net_proceeds_bids - total_incentive_payment	Integer	103000000 *The net proceeds for the auction will be negative until net revenue requirement has been met*
activity_requirement	Activity Requirement percentage per bidder per round	Integer	100 = 100% 80 = 80%
increment_percentage	Increment Percentage	Integer	10 = 10% This is the default increment percentage (prior to rounding prices up to the nearest $1,000). *Note: This field is Null for Round 1*
products_with_demand_greater_than_supply	Number of products (market-category combination) with aggregate demand greater than supply	Integer	196
products_with_demand_equal_to_supply	Number of products (market-category combination) with aggregate demand equal to supply	Integer	5
products_with_demand_less_than_supply	Number of products (market-category combination) with aggregate demand less than supply	Integer	2

1.2. Announcements

File name: clock_announcements.csv

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

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	103

Field	Description	Data Type	Examples
announcement_time	Time the announcement was posted	String YYYY-MM-DD HH:MM:SS	2019-12-10 10:00:00 *All times are in Eastern Time.*
subject	Subject of announcement	String	Round 2 begins next.
announcement	Text	String	"As a reminder, Auction begins next round…"

1.3. 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 (PEA 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 opening price, clock price, and supply.

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 (price_point = 0.0000). The system placed missing bids when a bid was expected for a product (the bidder had processed demand for the product but no bid was placed for the product at any price in the 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	103
round	Round number	Integer	12
market_number	PEA ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA001
market_name	PEA name	String	"New York, NY"
category	License category	String [MN|P] {1,2}	MN P
bidding_units	Number of bidding units associated with the product	Integer	2300
bidder	Bidder name	String	Company XYZ "ABC, Inc."

Field	Description	Data Type	Examples/*Notes*
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0007359151
bid_type	Type of bid	String [Simple|Switch]	Simple Switch
quantity	Number of blocks requested	Integer	2 *This value is the requested quantity for the product (not the number of blocks to be reduced or switched).*
bid_amount	Requested price for each block	Integer	125000 *For the "to" product in a switch bid, this value is the clock price associated with the product.*
price_point	The price point associated with the bid	Decimal [0-1] {10}	0.7560548272 *In round 1 this value is 1.0000000000.* *For the "to" product in a switch bid, this value will always be 1.0000000000 regardless of the price point of the "from" product.*
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 [MN|P] {1,2}	MN P *Null for Simple and the "from" product of a switch bid.*
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 [MN|P] {1,2}	MN P *Null for Simple and the "to" product of a switch bid.*
supply	The supply of blocks associated with the product	Integer	5
prev_round_processed_demand	The bidder's processed demand for the product at the start of the round	Integer	4 *Null for Round 1*

Field	Description	Data Type	Examples/*Notes*
prev_round_aggregate_demand	The aggregate demand for the product at the start of the round	Integer	12 *Null for Round 1*
round_opening_price	The lowest price available for bidding on the associated product in the round	Integer	11500000 *In Round 1 this is the opening price, for all other rounds it is the posted price from the previous round.*
round_clock_price	The clock price (highest price) of the associated product in the round	Integer	12650000
selection_number	The pseudo-random number associated with the bid used for tie-breaking purposes	Integer {1,15}	123456789012345

1.4.   Results

File name: clock_results.csv

The Results file provides a list of the results of bid processing for all products (PEA and license category combinations) for which each bidder had processed demand in the previous round. For each product the file gives the processed demand, posted price, and the aggregate demand. Additionally, if a bid was not fully accepted, the file provides an indication of such and details about why one or more bids for the product were not accepted.

File Structure:

- CSV file (first row contains header)
- One record for each round and product combination where the bidder had processed demand for the product 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	103
round	Round number	Integer	12
market_number	PEA ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA001
market_name	PEA name	String	"New York, NY"
category	License category	String [MN|P] {1,2}	MN P
bidder	Bidder name	String	Company XYZ "ABC, Inc."

Field	Description	Data Type	Examples/*Notes*
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0007359151
processed_demand	The bidder's demand for the product after processing	Integer	2
processed_demand_flag	Indication if all bids for the product were fully processed	String [Y|N] {1}	Y N *If a switch bid is not fully processed, both the "from" and "to" categories will have an "N".*
processed_demand_detail	Details about why one or more bids for the product were not accepted or not fully accepted during bid processing	String {500}	"Simple bid to increase demand to 5 @ $147,000,555: 2 blocks were not applied due to insufficient eligibility." "Simple bid to reduce demand to 0 @ $36,600,222: 3 blocks were not applied due to insufficient aggregate demand." *If more than one detail message is applicable (e.g., intra-round bids), then the messages are separated with semi-colons.* *If a switch bid was partially (or not) processed, the message will be in the record for both the switch from and to categories.* *Null if all bid(s) for the product were fully accepted.*
supply	The supply of blocks associated with the product	Integer	10
aggregate_demand	The aggregate demand for the product after processing	Integer	15

Field	Description	Data Type	Examples/*Notes*
posted_price	The posted price for the product after processing	Integer	12650000

1.5. Product Status

File name: product_status.csv

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

File Structure:

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

Field	Description	Data Type	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
round	Round number	Integer	12
market_number	PEA ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA001
market_name	PEA name	String	"New York, NY"
category	License category	String [MN|P] {1,2}	MN P
round_opening_price	The lowest price available for bidding on the product in the round	Integer	11500000 *In Round 1 this is the opening price, for all other rounds it is the posted price from the previous round.*
round_clock_price	The clock price (highest price) of the product in the round	Integer	12650000 *In Round 1 this is null until prices are announced*
aggregate_demand	The aggregate demand for the product after processing	Integer	15
posted_price	The posted price for the product after processing	Integer	12650000
next_round_clock_price	The clock price (highest price) of the product in the next round	Integer	13915000

Field	Description	Data Type	Examples/*Notes*
bidding_units	Number of bidding units associated with the product	Integer	2300
supply	The supply of blocks for the product	Integer	10
population	The population in the PEA associated with the product	Integer	25237061

1.6. Bidder Status

File name: bidder_status.csv

The Bidder Status file provides information related to bidders and 39 GHz incumbents relinquishing licenses (including those that are not bidding) for a round. For each round the file gives the bidder's eligibility, required activity and bidding activity in the round. The results of bid processing are also given for the round including the bidder's processed activity as well as the bidder's eligibility and required activity for the next round. Financial information for bidders (requested commitment, processed commitment, net requested commitment, and processed net commitment) and incumbents (incentive payment) are also given.

File Structure:

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

Field	Description	Data Type	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
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}	0007359151
bidding_credit_pct	The bidding credit percentage associated with the bidder *0 = no bidding credit* *15 = 15% bidding credit*	Integer [0|15|25]	0 15 25 *Null if an incumbent is not a qualified bidder in the auction*

Field	Description	Data Type	Examples/*Notes*
bidding_credit_type	Indicates the type of bidding credit for which the bidder claimed eligibility Rural = rural service provider bidding credit Small Business = small business bidding credit	String [Rural | Small Business]	Small Business Rural *Null if a bidder is not eligible for a bidding credit* *Null if an incumbent is not a qualified bidder in the auction*
eligibility	The bidder's eligibility in bidding units at the start of round	Integer	8000000 *Null if an incumbent is not a qualified bidder in the auction*
required_activity	The bidder's required activity in bidding units for the round	Integer	5000000 *Null if an incumbent is not a qualified bidder in the auction*
activity	The bidder's bidding activity in bidding units for the round	Integer	4000000 *Null if an incumbent is not a qualified bidder in the auction*
req_commitment	The bidder's requested commitment in dollars for the round	Integer	346000000 *Null if an incumbent is not a qualified bidder in the auction*
max_incentive_payme nt	The incumbent's total incentive payment amount for relinquishing one or more licenses calculated at the round's clock prices.	Integer	100500000 *Contains a value if an incumbent (both qualified bidder and not qualified bidder) and has an incentive payment for relinquishing its licenses.* *Null otherwise*
req_commitment_disc ount_capped	The bidder's requested discount for new licenses in dollars for the round based on any bidding credits and applying any applicable bidding credit caps and incentive payments	Integer	10000000 *Null if a bidder is not eligible for a bidding credit*

Field	Description	Data Type	Examples/*Notes*
req_net_commitment	The bidder's requested net commitment is equal to its requested commitment minus its incentive payment (applicable only for incumbents in the 39 GHz band) minus its capped requested commitment discount in dollars for the round	Integer	336000000 *Null if a bidder is not incumbent and is not eligible for a bidding credit* *Requested net commitment can be negative for an incumbent.* *For an incumbent that is not a qualified bidder in the auction, req_net_commitment is the negative of max_incentive_payment*
req_commitment_disc ount_uncapped	The bidder's requested discount for new licenses in dollars for the round based on any bidding credits without applying any applicable bidding credit caps and incentive payments	Integer	16000000 *Null if a bidder is not eligible for a bidding credit*
req_commitment_disc ount_uncapped_small	The bidder's requested discount for new licenses in dollars for the round in the small markets based on any bidding credits without applying any applicable bidding credit caps and incentive payments	Integer	11000000 *Contains a value if a bidder claimed eligibility for a small business bidding credit. Null otherwise*
processed_activity	The bidder's bidding activity in bidding units after processing	Integer	4100000 *Null if an incumbent is not a qualified bidder in the auction*
commitment	The bidder's commitment in dollars for the round	Integer	348500000 *Null if an incumbent is not a qualified bidder in the auction*

Field	Description	Data Type	Examples/*Notes*
incentive_payment	The incumbent's total incentive payment for relinquishing one or more licenses based on posted prices for the round.	Integer	100500000 *Contains a value if an incumbent (either a qualified bidder or not a qualified bidder) has an incentive payment for relinquishing its licenses.* *Null otherwise*
commitment_discount _capped	The bidder's discount for new licenses in dollars for the round based on any bidding credits and applying any applicable bidding credit caps and incentive payments	Integer	10000000 *Null if a bidder is not eligible for a bidding credit*
net_commitment	The bidder's net commitment is equal to its commitment minus its incentive payment (applicable only for incumbents in the 39 GHz band) minus its capped commitment discount in dollars for the round	Integer	338500000 *Null if a bidder is not an incumbent and is not eligible for a bidding credit* *Net commitment can be negative for an incumbent* *For an incumbent that is not a qualified bidder in the auction, net_commitment is the negative of incentive_payment*
commitment_discount _uncapped	The bidder's discount for new licenses in dollars for the round based on any bidding credits without applying any applicable bidding credit caps and incentive payments	Integer	15900000 *Null if a bidder is not eligible for a bidding credit*
commitment_discount _uncapped_small	The bidder's discount for new licenses in dollars for the round in the small markets based on any bidding credits without applying any applicable bidding credit caps and incentive payments	Integer	11900000 *Contains a value if a bidder claimed eligibility for a small business bidding credit.* *Null otherwise*

Field	Description	Data Type	Examples/*Notes*
next_round_eligibility	The bidder's eligibility in bidding units at the start of the next round	Integer	5125000 *Null if an incumbent is not a qualified bidder in the auction*
next_round_required_activity	The bidder's required activity in bidding units for the next round	Integer	4100000 *Null if an incumbent is not a qualified bidder in the auction*

1.7.   Bidder-Market

File name: bidder_market.csv

This file lists the markets each qualified bidder selected on it FCC Form 175.

File Structure:
- CSV file, first row contains header
- Contains a record for every qualified bidder and every PEA combination

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	103
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0007359151
bidder_name	Bidder name	String	Company XYZ "ABC, Inc."
market_number	PEA ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA043
eligible_market	Indicates if the bidder is eligible to bid on blocks in the market based on the bidder's selection in its FCC Form 175	String	Y N

1.8.   Markets

File name: markets.csv

The Markets file defines the geographic markets in the auction. The geographic markets are Partial Economic Areas (PEAs). For each PEA the file provides the market number, name, population, weighted MHz-pops, 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

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	103 103-Mock
market_number	PEA ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA001
market_name	PEA name	String	"New York, NY"
market_population	The population in the PEA	Integer	25237061
weighted_mhz_pops_per_block	Weighted MHz-pops of the PEA per 100-MHz block	Integer	3442672800
bidding_units	Bidding units per block in the PEA	Integer	25000
small_market_indicator	Indicates if the PEA is subject to the small market bidding credit cap	String	Y, N

1.9. Blocks

File name: blocks.csv

The Block file contains information about the band plan and specific frequency blocks for the auction.

File Structure:
- CSV file (first row contains header)
- One record for each frequency block

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	103
block_code	Block code 1 = MN and P categories	Integer	1
number_of_blocks	Number of unpaired blocks	Integer	34
M1	Block M1 frequencies	String {0,50}	37.6–37.7 GHz
M2	Block M2 frequencies	String {0,50}	37.7–37.8 GHz

Field	Description	Data Type	Examples
M3	Block M3 frequencies	String {0,50}	37.8–37.9 GHz
M4	Block M4 frequencies	String {0,50}	37.9–38.0 GHz
M5	Block M5 frequencies	String {0,50}	38.0–38.1 GHz
M6	Block M6 frequencies	String {0,50}	38.1–38.2 GHz
M7	Block M7 frequencies	String {0,50}	38.2–38.3 GHz
M8	Block M8 frequencies	String {0,50}	38.3–38.4 GHz
M9	Block M9 frequencies	String {0,50}	38.4–38.5 GHz
M10	Block M10 frequencies	String {0,50}	38.5–38.6 GHz
N1	Block N1 frequencies	String {0,50}	38.6–38.7 GHz
N2	Block N2 frequencies	String {0,50}	38.7–38.8 GHz
N3	Block N3 frequencies	String {0,50}	38.8–38.9 GHz
N4	Block N4 frequencies	String {0,50}	38.9–39.0 GHz
N5	Block N5 frequencies	String {0,50}	39.0–39.1 GHz
N6	Block N6 frequencies	String {0,50}	39.1–39.2 GHz
N7	Block N7 frequencies	String {0,50}	39.2–39.3 GHz
N8	Block N8 frequencies	String {0,50}	39.3–39.4 GHz
N9	Block N9 frequencies	String {0,50}	39.4–39.5 GHz
N10	Block N10 frequencies	String {0,50}	39.5–39.6 GHz
N11	Block N11 frequencies	String {0,50}	39.6–39.7 GHz
N12	Block N12 frequencies	String {0,50}	39.7–39.8 GHz
N13	Block N13 frequencies	String {0,50}	39.8–39.9 GHz
N14	Block N14 frequencies	String {0,50}	39.9–40.0 GHz
P1	Block P1 frequencies	String {0,50}	47.2–47.3 GHz
P2	Block P2 frequencies	String {0,50}	47.3–47.4 GHz

Field	Description	Data Type	Examples
P3	Block P3 frequencies	String {0,50}	47.4–47.5 GHz
P4	Block P4 frequencies	String {0,50}	47.5–47.6 GHz
P5	Block P5 frequencies	String {0,50}	47.6–47.7 GHz
P6	Block P6 frequencies	String {0,50}	47.7–47.8 GHz
P7	Block P7 frequencies	String {0,50}	47.8–47.9 GHz
P8	Block P8 frequencies	String {0,50}	47.9–48.0 GHz
P9	Block P9 frequencies	String {0,50}	48.0–48.1 GHz
P10	Block P10 frequencies	String {0,50}	48.1–48.2 GHz

1.10. Relinquished Credit

File name: relinquished_credit.csv

The My/All Relinquished Credit file provides a list of the relinquishments in weighted MHz-pops and posted prices in a given round for all products (PEA and MN license category combinations) in which the incumbent has a credit for relinquishing its license in the initial commitment phase. Note that this file includes incumbents that are not qualified bidders in the auction. Additionally, incumbents that are qualified bidders in the auction may be getting credit for a PEA that they are not eligible to bid for.

File Structure:

- CSV file (first row contains header)
- One record for each round and incumbent and PEA combination where the incumbent relinquished its license in the initial commitment phase

Field	Description	Data Type	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
round	Round number	Integer	12
incumbent	Qualified incumbent name	String	AT&T
frn	The incumbent's FCC Registration Number (FRN) which uniquely identifies the incumbent	String [0-9]{10}	0007359151

Field	Description	Data Type	Examples/*Notes*
initial_commitment_option	Indicates the option that incumbent chose during the initial commitment window. 1 = Option 1 (partial) 2 = Option 2 (partial) 3 = Option 3	Integer	1 2 3
market_number	The PEA (Partial Economic Area) ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA001
market_name	The PEA name	String	"New York, NY"
category	License category	String [MN] {2}	MN
weighted_mhz_pops_per_block	Weighted MHz-pops of the market per 100-MHz block	Integer	3442672800
relinquished_adjusted_weighted_mhz_pops	The adjusted weighted MHz-pops of the relinquished holdings, as modified during the initial commitment phase. For initial_commitment_option = 1 or 2, this field pertains to the partial block, if it is relinquished. For initial_commitment_option = 3, this field pertains to all markets.	Decimal	122223.50 *Note: For initial_commitment_option = 3, the system will place redistributed holdings for the balance into partial PEAs, as much as possible without exceeding a full block, starting with the lowest numbered PEA.*
posted_price	The posted price for the product after processing	Integer	12650000

2. Assignment Phase

2.1. Auction Summary

File name: assignment_auction_summary.csv

Field	Description	Data Type	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
auction_description	Description of auction	String	"Upper 37 GHz, 39 GHz, and 47 GHz"
round	Round number	Integer	12
start_time	Round starting time	String YYYY-MM-DD HH:MM:SS	2020-02-18 10:00:00 *All times are in Eastern Time.*
end_time	Round ending time	String YYYY-MM-DD HH:MM:SS	2020-02-18 10:30:00 *All times are in Eastern Time.*
gross_proceeds	The gross proceeds after the round	Integer	2077000000 *This includes the clock phase payments for all PEAs and the assignment payments for all completed assignment rounds*
net_proceeds	The net proceeds after the round	Integer	1990000000 *This includes the clock phase payments for all PEAs and the assignment payments for all completed assignment rounds, and takes bidding credit and bidding credit caps into account*
total_incentive_payment	Total incentive payment for all incumbents relinquishing one or more licenses based on posted prices for the final round of the clock phase.	Integer	1887000000 *Note that this will have the same value for each round*
net_proceeds_auction	net_proceeds - total_incentive_payment	Integer	103000000

2.2.   Announcements

File name: assignment_announcements.csv

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

Field	Description	Data Type	Examples
auction_id	The FCC auction number for the auction	String	103
announcement_time	Time the announcement was posted	Date/Time	2020-03-05 15:35:57
subject	Subject of announcement	String	Assignment Phase Has Concluded
announcement	Text	String	"Bidding in the assignment phase…"

2.3.   Assignment Rounds

Filename: assignment_rounds.csv

This file lists the assignment phase round in which each PEA was available for bidding.

File Structure:
- CSV file, first row contains header
- One record for each market

Field	Description	Data type	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
round	Round number	Integer	2 *This is "0" for any pre-assigned PEAs.*
region	For PEAs 1-20, "Top 20". For other PEAs, the REAG Name as provided in the Market-REAG file	String	Top 20 REAG 1 REAG 2
market_number	PEA ID	String	PEA001
market_name	PEA name	String	"New York, NY"
market_population	Population of the PEA	Integer	25237061

2.4. Bids and Options

Filename: bids_and_options.csv

This file contains the details of the options available to each bidder in each round in which the bidder could participate based on its winnings in the clock phase. It includes any pre-assigned PEAs (with a round of '0') — with the pre-assigned option.

File Structure:
- CSV file, first row contains header
- One row per option

Field	Description	Data type	Example/*Notes*
auction_id	The FCC auction number for the auction	String	103
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}	0007359151
round	Round number	Integer	2 *This is "0" for any pre-assigned PEAs.*
region	For PEAs 1-20, "Top 20". For other PEAs, the REAG name	String	Top 20 REAG 1 REAG 2
market_number	The PEA ID(s) associated with the option	String	PEA003 PEA064;PEA112;PEA145 *"PEA" followed by 3 numbers (using leading zeros), e.g. "PEA001". In the case where PEAs are grouped, it lists the grouped PEAs each separated by a semicolon*
market_name	The PEA name(s) associated with the option	String	"Honolulu, HI" "Lansing, MI;Sarasota,FL" *In the case where PEAs are grouped, it lists the names of the grouped PEAs each separated by a semicolon*
category	The license category associated with the option	String [MN|P]{1,2}	MN P

Field	Description	Data type	Example/*Notes*
winnings	The number of blocks that the bidder won in this category in these markets	Integer	3 *This covers all PEAs in the "package" (e.g. if 3 PEAs are grouped and the bidder won 2 blocks in Category P in each PEA, the value would be 6)*
option	The specific blocks for that option	String	P3.P4.P5 *Each block is separated from the next block with a period*
clock_phase_payment	The clock phase payment for the "package" associated with that option	Integer	2873499 *The number of blocks won by the bidder in this category in each market associated with the option multiplied with the sum of the final clock phase prices of all PEAs associated with the option*
assignment_round_bid	The bid placed for that option	Integer	29000 *This is blank for all bid options that the bidder cannot place a bid for (i.e., pre-assigned PEAs and options where it is the only option for the bidder). For all other options, it is either zero or the value of the bid placed for that option.*

2.5.   Results

File name: assignment_results.csv

This file contains the assignment phase results for bidders. This file contains one row for every assignment (i.e., each bidder/round/region/category/ /, PEA or PEA grouping, and winning bidder in the round). It includes results of pre-assignments (round "0").

File Structure:
- CSV file, first row contains header
- One row per assignment

Field	Description	Data type	Example/*Notes*
auction_id	The FCC auction number for the auction	String	103
bidder	Bidder name	String	Company XYZ "ABC, Inc."

Field	Description	Data type	Example/*Notes*
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0007359151
round	Round number	Integer	2 *This is "0" for any pre-assigned PEAs.*
region	For PEAs 1-20, "Top 20". For other PEAs, the REAG Name as provided in the Market-REAG file	String	Top 20 REAG 1 REAG 2
market_number	The PEA ID(s) associated with the option	String	PEA003 PEA064;PEA112;PEA145 *"PEA" followed by 3 numbers (using leading zeros), e.g., "PEA001". In the case where PEAs are grouped, it lists the grouped PEAs each separated by a semicolon*
market_name	The PEA name(s) associated with the option	String	"Honolulu, HI" "Lansing, MI;Sarasota,FL" *In the case where PEAs are grouped, it lists the names of the grouped PEAs each separated by a semicolon*
category	The license category associated with the option	String [MN|P] {1,2}	MN P
winnings	The number of blocks that the bidder won in this category in these markets	Integer	3 *This covers all PEAs in the "package" (e.g., if 3 PEAs are grouped and the bidder won 2 blocks in Category P in each PEA, the value would be 6)*
option_assigned	The specific blocks for that assignment	String	P3.P4.P5 *Each block is separated from the next block with a period*

Field	Description	Data type	Example/*Notes*
clock_phase_payment	The clock phase payment for the "package" associated with that option	Integer	3457899 *The number of blocks won by the bidder in this category in each market associated with the option multiplied with the sum of the final clock phase prices for all PEAs associated with the option*
assignment_round_bid	The bid placed in the assignment round for that option	Integer	20345 *This is the bid placed by the bidder on the option they won. It is 0 if the bidder did not place a bid for this option (or placed a bid of 0). It is also 0 for pre-assigned PEAs.*
vickrey_price	The Vickrey price of the bidder for its assignment	Integer	0 30000
core_adjustment	The additional payment above the bidder's Vickrey price that ensures no group of bidders is willing to pay more for an alternative assignment	Integer	0 6576
assignment_payment	The assignment price paid by the bidder for that assignment. It is the sum of vickrey_price and core_adjustment	Integer	0 36576
gross_payment	The sum of clock_phase_payment and assignment_payment	Integer	3457884 *This is the "gross payment" not taking into account bidding credits/caps.*

2.6.   Cumulative Results

File name: cumulative_results.csv

This file contains the cumulative financial results for each bidder after each round. This file contains one row for each bidder and each round, including pre-assignments (round "0").

File Structure:
- CSV file, first row contains header
- One row per bidder/assignment round combination

Field	Description	Data type	Example/*Notes*
auction_id	The FCC auction number for the auction	String	103
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}	0007359151
rounds_completed	Round number of the last posted round covered by the data	Integer	2 *Includes "0" for pre-assignments*
gross_payment	The gross payment (i.e., excluding all discounts) for clock phase and all assignment rounds up to and including round_completed	Integer	15900185
discount_uncapped_all_markets	The uncapped discount for all markets for the gross payment, in dollars	Integer	60000000
net_payment	The net payment (i.e., incorporating capped discounts and incentive payments) calculated as: net_payment = gross_payment – incentive_payment – discount_capped_all_markets	Integer	80000000
discount_uncapped_small_markets	The uncapped discount specifically for small markets, in dollars	Integer	8971503
discount_capped_all_markets	The capped discount for all markets, in dollars	Integer	50000000
incentive_payment (only for incumbents)	The incumbent's total incentive payment for relinquishing licenses based on posted prices for the final clock round	Integer	100500000 *Contains a value if the incumbent has an incentive payment for relinquishing its licenses.* *Null otherwise.* *This value remains the same after each assignment round*

2.7.   Results by License

File name: results_by_license.csv

This file provides final license price information for each license offered in the auction. It includes records for all Category MN and Category P licenses 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	103
license	License name	String	*The license name is a combination of radio_service_code, market_number, and block each separated by "-", such as "UU-PEA276-M1"*
partial	Flag indicating whether an assigned license is for a full block or a partial block	String	Y, N
radio_service_code	The radio code as set by the FCC	Character [UU]{2}	UU
market_number	PEA ID	String (["PEA"][0-9][0-9][0-9]){6}	PEA043
market_name	PEA name	String	"New York, NY"
block	The block within the market	String	M1 P1
category_code	Xategory code indicates the generic license category. "MN" = License Category MN "P" = License Category P	String	MN P
frn	The bidder's FCC Registration Number (FRN) which uniquely identifies the bidder	String [0-9]{10}	0007359151
bidder	Bidder name	String	Company XYZ "ABC, Inc."

Field	Description	Data Type	Examples/*Notes*
bidding_credit_type	Indicates the type of bidding credit that the bidder who won the license claimed eligibility for.	String ["Rural" | "Small Business" | ""] {0,14}	Rural Small Business Null *Null if bidder has no credit* *Null if non-bidding incumbent*
bidding_credit_pct	Bidding credit percentage. For a bidder without a bidding credit, this value is set to 0 or Null.	Numeric [0|15|25]{1,2}	15 25 0 Null *Null if bidder has no credit* *Null if non-bidding incumbent*
gross_license_price	The gross price of the license after apportioning the assignment payment	Integer	145592166 *Null if non-bidding incumbent*
net_license_price	The net price of the license after apportioning the assignment payment and any bidding credit discount	Integer	123941798 *Null if non-bidding incumbent*
effective_bidding_credit	Calculated as 100 times 1-(net_license_price/ gross_license_price)	Decimal	14.42 *Calculated to 2 decimal places* *Null if non-bidding incumbent*

2.8. Unassigned Licenses

File name: unassigned_licenses.csv

This file includes information about all the unassigned licenses in the auction, including the licenses where only parts of the blocks were assigned to incumbents who selected to keep a partial block in their modified licenses in the Initial Commitments.

File Structure:
- CSV file (first row contains header)
- One record per unsold license

Field	Description	Data Type	Examples/*Notes*
auction_id	The FCC auction number for the auction	String	103
license	License name	String	The license name is a combination of radio_service_code, market_number, and block each separated by "-", such as "UU-PEA276-M1"

Field	Description	Data Type	Examples/*Notes*
partial	Flag indicating whether an unassigned license is for a full block or a partial block	String	N *None of the incumbents elected to keep a partial block in the Initial Commitment phase, so this value will always be "N".*
radio_service_code	The radio code as set by the FCC	Character [UU]{2}	UU
market_number	PEA ID	String (["PEA"][0-9] [0-9][0-9]){6}	PEA043
market_name	PEA name	String	"New York, NY"
block	The block within the market	String	M1 P1
category_code	Category code indicates the generic license category. "MN" = License Category MN "P" = License Category P	String	MN P

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 standards.

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 spaces. 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.

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 list has examples of valid decimals:

- 123.45
- -0.15
- .67
- 0.30

The following list has examples of invalid decimals:

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

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

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

- If the Integer is of defined length then curly brackets should be used. For example, {3} indicates the integer should be exactly 3 digits long.
- The maximum value of an unsigned Integer is 2^{64}-1 which is 18446744073709551615
- Positive integers should not include a (+) plus sign. Any Integers containing a + are considered invalid.
- Negative integers include a (-) minus sign.

The following list has examples of valid integers:

- 009
- 9
- 2147483647
- -3457112

The following list has examples of invalid integers:

- +009
- 18446744073709551616 (i.e., too large)

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 spaces.
  - 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

- 102

Invalid Values for example 1:

- 09
- 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 mean 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.

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.